

PARTS LIST LISTE PIECES DETACHEES ERSATZTEILLISTE LISTA PARTI DI RICAMBIO LISTA DE PIEZAS DE REPUESTO

TELEFUNKEN DH540ME Chassis ICC19

MODULES		
MAIN	ICC19B5ND024000	
AMFM	AM/FM19101	R 10349130
CRT	CRTBS19100	R 10354460
DVT	DVT19000	R 10350370
FCB	FCB1902	25282130
ISR	ISR1900	25282150
MIS	MIS19111	10537030
SCI	SCI19003	10398010
SFB	SFB4002	10306070
VM	VM19100	R 10353940
		
GR01	TFMK1330T	10132410
IA001	TDA7269	10348790
IB01,02,03	TEA5101B	10231440
IF001	TDA8177F	10352880
II050	TDA9811AV3	10336130
IL062	TL082/CP	46161100
IP050,IX001	MC7809/CT	70401402
IP060	TEA2261	90542470
IP130	MC7812/CT	46007600
IP140	TDA8139	10044580
IR001	ST90R92	10441970
IR002	SOFT M27C801-120F1 V2.00	10556730
IR003	M24C32BN1	10462210
IR004	MC14094BD	20334930
IR004	MC14094BD/HEF4094BT	20016020
IS01,60	MC4558CD	10401230
IS10	MC78L08ACP	10308410
IS40	MSP3410D-PP	10510320
IT001	SDA5273S-C134	10443110
IT002	HYB514400BJ 80	10359750
IV001	STV2165	10360480
IV001	STV2162 CUT2.2	10529490
IV304	LM358D FLAT	10258670
IV308	DMUO-UP	10325580
IV309	TMS4C2972DT	10458130
IV601	TDA9143S1	10516090
IV602	TDA4665T FLAT	10155740
IX900	TEA6415C	15081290
ZL041	MP160	△ 10457130
ZV301	MP40	△ 10469170
		
TA002, TI031, 032,070, TL001, 062,063, TP027, 152,161,162, 167,170,175, TR002,102,105, TX955,960,965	BC047B SMD	11070770
TB18, TV108, TI010,033,034, 040,045,050, TP145, TR091, 095,106, TT004	BC327-40 BCR141 SMD	16000450 16006890
TI020	BF799 SMD	35031670
TI030, TP150, 166,190, TV063, 073,083	BC857B SMD	30946660
TL004	MPSW01A	70436520
TL005	MPS750	16001340
TL028, TV002	TIP122	10045750
TL30	ON4977/BU2525AX	10461310
TM01,04,10,50, 51,65,66,80, 81, TP026, TV002,301,302, 321,322,601, 802,822,823, 842,843	BC846B SMD	16006260
TM02	BC337	16000520
TM05, TP08	BC548B	16000930
TM06	2SA1837	16001500
TM07	2SC4793	16001600
TM08	BC558B	16001110
TM09, TT001, 003,006,007, 011,012, TX830, 831,832,833	BC848C SMD	20438166
TM52,53,67,68, 82,83, TV001, 003,051,071, 300,600,801, 803,821,841	BC856B SMD	16006310
TP025	600V 1A25	10353960
TP060	BUL810TH	10224370
TP146	BD241C	16001880
TR048	BCR185 SMD	16006900
TT002,008,009, 010	BC858C SMD	50854683
TV303	BF660 SMD	16005830
		
DA002, DV011, 012	LL42 SMD	16012530
DB04,07	IN4004	44009009
DB20,28,46,48, 66,68, DF002, 028, DL070,072, 157, DM01,02, 09,10, DP034, 051,060,061, 151,152,160, 175,178,179, 190, DR090, DV025,026,027, 028,221, RL214, RV052	LL4148 SMD	16012450
DB31,32,51,52, 71,72, DS61,62	BAV203 SMD	10222420
DB50,70	BAV21	16007470
DF001, DL092, 004, DM01,02,03,04, 027,08, DR091, DX300	1N4148	44009209
DF007	ZMM15	16030060
DF011	BZW04-58	10368210
DF031,033, 001,051,052, 03,04, DP050	RGP10G	10459090
DH001	ZMM33	10376460
DI001,002,040, 041,051,070, 071	BA782S	20542050
DL030	DTV32F-1500	10452490
DL032	BYT08P-400A	16008650
DL034,036	BYT01-200	16008600
DL041, DP108, 109,130	RGP30D	10455370
DL043	RGP10M	10455320
DL046, DP022	FUF4005	16009580
DL050	BZX85C22	11072690
DL060	ZMM3,3	16030170

R : RECYCLED PART
: PIECE RECYCLEE
: AUSTAUSCHTEILE
: RICAMBIO RICICLATO
: MODULO REPROCESADO

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DL066	ZMM4/	10250480
DL071	BZX55C33	11073690
DP028,DX314	BZX55B5V1	50890550
DP040	BZX85B2V7	16020210
DP041	BAT42	16007410
DP052,133	1N4001	16008160
DP053	RGP15G	10272800
DP10,11,12,13	GP30M	10455410
DP110	RGP50M	10298160
DP112,113	MUR1100E	10360280
DP134	1N5817	16008270
DP140	BYV63 150	16009010
DR104	BZX55B9V1	70438220
DV001	ZMM2,7 SMD	16030100
DV101	ZMM6,8 SMD	70439940
DV104,108, DX120,151,220, 251,301,351	BAV103 SMD	10155030
DV301,305,309	BB729S SMD	20542090
DV303,304, LV320	BA582 SMD	16012130
DV623	BZX84C5V1 SMD	16030330
DX810	BZX55B8V2	40441820
GE01	TLUV5300 LED	11137650
		
FI010	OFWK3954M FOS	10357610
FI015	OFWG3970M FOS	10512420
FI020	OFWK9453M FOS	10176450
QI053	6M0HZ	48042300
QI070	6M5HZ	20356510
QR001	27M0HZ	10254120
QS40	18M432HZ	10334670
QT001	20M48HZ	10495020
QV601	4M433619HZ	10397980
QV602	3M579545HZ	10087720
		
FI001	40M4HZ	20300950
FI002	38M9HZ	10319260
FI030	77M8HZ	10348570
FI040	6M6HZ	10437980
FM50,65,80	100NS	10203890
LL034		10153270
LV312,315	7M96HZ	10519360
LV318	7M96HZ	10519350
LV331	7M96HZ	10519340
		
PI030,035	2K2 OHM	10308240
PI050	22K0 OHM	10272680
		
JP310	1K0 OHM 1% 0,25W	15012570
RA013,014	4R7 OHM 5% 0,35W	△ 10226310
RB01,04,79	1K5 OHM 5% 0,50W	10121880
RB06	47R0 OHM 5% 0,70W	10181910

RB01,09, RM1/, RP050, RV601	10R0 OHM 5% 0,25W 619R0 OHM 1% 0,40W	△ 15009580 15019980
RB21	39K0 OHM 2% 4W	10358890
RB24,44,64	2K2 OHM 5% 0,50W	△ 10152130
RB27,47,67	33R0 OHM 10% 0,50W	14050190
RB31,51,71	681R0 OHM 1% 0,40W	15020320
RB41	649R0 OHM 1% 0,40W	15020140
RF011	1R5 OHM 5% 0,50W	△ 15022560
RF012,013	1R0 OHM 1% 0,70W	10254220
RF015	15R0 OHM 265V PTC	△ 10237730
RF020	270R0 OHM 1% 0,70W	10302230
RL013	4R7 OHM 5% 0,50W	△ 15010040
RL015	1R0 OHM 5% 0,25W	△ 15009730
RL029	2R2 OHM 5% 0,50W	△ 10440420
RL037	1K0 OHM 10% 0,50W	10393870
RL040	0R27 OHM 5% 2,50W	10263600
RL043	2R2 OHM 5% 0,70W	△ 13000480
RL047	47R0 OHM 5% 0,50W	10233220
RL052	46K4 OHM 1% 0,70W	10403710
RL081	68K1 OHM 1% 0,12W	10433880
RL082	61K9 OHM 1% 0,12W	10516840
RM20	9K0/20K0/180K0 OHM	90560978
RM26	330R0 OHM 5% 0,35W	△ 10248240
RM30	22R0 OHM 5% 0,25W	△ 35031220
RM57,72,87	221R0 OHM 1% 0,40W	15014310
RM58,73,88	274R0 OHM 1% 0,40W	15015080
RM61,76,91	3K3 OHM 1% 0,40W	15017250
RP020	0R12 OHM 5% 2,50W	10334390
RP022	100R0 OHM 5% 4,50W	10379830
RP025	33K0 OHM 5% 2W	13001680
RP05	18R0 OHM 220V PTC	△ 41398800
RP066	4K22 OHM 1% 0,40W	15018600
RP10	2R7 OHM 5% 4,50W	10379110
RP100	10M0 OHM 5% 0,70W	△ 10074320
RP112	1K2 OHM 5% 2W	10134060
RP173, RR015, 016,017,018, 019,085,087, 088,089, RV231, 232, RX910	100R0 OHM 5% 0,25W	30943330
RS42	4R7 OHM 5% 0,25W	△ 35032200
RV041	8R2 OHM 5% 0,25W	△ 15010150
		
CB01	10NOF 3K0V	14036450
CB67,76	100P0F 20% 2K0V	14006310
CL030	1N9F 5% 2K0V	13071270
CL031	11N6F 2,5% 2K0V	40406501
CL032	24N0F 5% 400V	10477940
CL034	12N0F 5% 400V	43324600
CL036	2U2F 20% 250V	10190240
CL037	410N0F 5% 400V	10180780
CL038,039	27N0F 5% 250V	50895120
CL041,043	330P0F 20% 1K0V	14035270
CL052	10N0F 5% 400V	14035870
CL084	3N9F 5% 400V	10522580
CL146	150P0F 20% 1K0V	30937590
CM48	470P0F 10% 400V	14002340
CP01,02	100N0F 20% 275V	△ 10331520
CP020,13	150U0F 385V	43424800
CP021	150P0F 2K0V	10099380
		
CP022,111	4/0P0F 10% 2K0V	10099390
CP023	2N2F 10% 1K0V	13090980
CP050,053	330P0F 20% 400V	14002220
CP10	1N5F 10% 1K0V	20338740
CP100	1N5F 20% 400V	△ 10344860
CP11,12	4N7F 1K0V	10058740
CP112	3N3F 5% 630V	△ 10490550
CP135,137,138	470P0F 20% 1K0V	40434510
		
LL001	DRIVER	10468760
LL008	DSTGDS35	△ 10468070
LL037		△ 10518230
LP01		△ 10203560
LP020	SMT89	△ 10553820
LP070	DRIVER	△ 60412091
OTHER PARTS AUTRES PIÈCES SONSTIGE TEILE ALTRÉ PARTI OTRAS PIEZAS		
BB10	CATHODE RAY TUBE SOCKET SUPPORT TUBE CATHODIQUE BILDROEHRENFASSUNG SUPPORTO TUBO CATODICO SOPORTE T.R.C	△ 80298800
BM10	CINCH SOCKET ASSY PLAQUE 1TE PRISES CINCH CHINCH BUCHSEN-EINHEIT ASSIEME PRESA CINCH PLAQUE 1A TOMA CINCH	10487650
BM11	SVHS SOCKET PRISE SVHS S-VHS-BUCHSE PRESA SVHS TOMA SVHS	20392900
BM12	HEADPHONE PLUG PRISE CASQUE BUCHSE KOPFHÖRER PRESA JACK TOMA JACK	20483040
BS04	CINCH SOCKET PRISE CINCH CHINCH-BUCHSE PRESA CINCH TOMA CINCH	10368990
BX100,200,300	SCART SOCKET PRISE PERITEL EURO-AV-BUCHSE EUROPRESA NORMALIZZATA EUROCONECTOR	10402480
BX803	JACK SOCKET PRISE JACK JACK BUCHSE PRESA JACK TOMA JACK	10447830
FP01	2A5 TIME-LAG FUSE 2A5 FUSIBLE TEMPORISE 2A5 SICHERUNG 2A5 FUSIBILE TEMPORIZZATO 2A5 FUSIBLE TEMPORIZADO	△ 10246750
IR001	IC SUPPORT 4X17 SUPPORT CI 4X17 IC-FASSUNG 4X17 SUPPORTO CI 4X17 SOPORTE CI 4X17	67626900

NH001	CTT5000T UHF/VHF TUNER	R 20808880	A68EGD038X322(A) CATHODE RAY TUBE A68EGD038X322(A) TUBE CATHODIQUE A68EGD038X322(A) FARBBILDROEHRE A68EGD038X322(A) TUBO CATODICO A68EGD038X322(A) T.R.C	△ 10524 /10	
SM01,02,03	MICROSWITCH MICRO CONTACTEUR MIKRO SCHALTER MICROINTERRUTTORE MICROCONTACTOR	10452620	DEGAUSSING COIL BOBINE DE DEMAGNETISATION ENTMAGNETISIERUNGSSPULE BOBINA DI SMAGNETIZZAZIONE BOBINA DE DESIMANTACION	△ 47320181	
SP05	RELAY 12V RELAIS 12V RELAIS 12V RELE 12V RELE 12V	△ 90294100	RC4000 REMOTE CONTROL RC4000 TELECOMMANDE RC4000 FERNBEDIENUNG RC4000 TELECOMANDO RC4000 TELEMANDO	10525980	
			FOLDING BOX EMBALLAGE CARTON KARTON IMBALLAGGIO CARTONE EMBALAJE CARTON	25288240	
			FITTING DOWNER CALE INFERIEURE POLSTER UNTEN DISTANZIATORE INFERIORE CALZO INFERIOR	25288100	
			FITTING UPPER CALE SUPERIEURE POLSTER OBEN DISTANZIATORE SUPERIORE CALZO SUPERIOR	25288110	
			INSTRUCTIONS NOTICES ANLEITUNGEN INSTRUZIONI MANUALE		
			DH540ME PARTS LIST DH540ME LISTE DE PIECES DETACHEES DH540ME ERSATZTEILLISTE DH540ME LISTA PARTI DI RICAMBIO DH540ME LISTA DE PIEZAS DE REPUESTO	35049650	
			ICC19 100HZ SERVICE MANUAL ICC19 100HZ DOC TECHNIQUE ICC19 100HZ TECHNISCHE DOKUMENTATION ICC19 100HZ DOCUMENTAZIONE TECNICA ICC19 100HZ DOCUMENTACION TECNICA	35047630	
			DH540ME UM TELEFUNKEN D/F/I/E DH540ME NU TELEFUNKEN D/F/I/E DH540ME BA TELEFUNKEN D/F/I/E DH540ME IU TELEFUNKEN D/F/I/E DH540ME IU TELEFUNKEN D/F/I/E	25308200	
		△ 10276500	DH540ME UM TELEFUNKEN GB/NL/DK/S DH540ME NU TELEFUNKEN GB/NL/DK/S DH540ME BA TELEFUNKEN GB/NL/DK/S DH540ME IU TELEFUNKEN GB/NL/DK/S DH540ME IU TELEFUNKEN GB/NL/DK/S	25315310	
		25289650			
		25288880			
		△ 10260880			

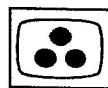
DH540ME

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Brandt FERGUSON NORDMENDE SABA TELEFUNKEN THOMSON

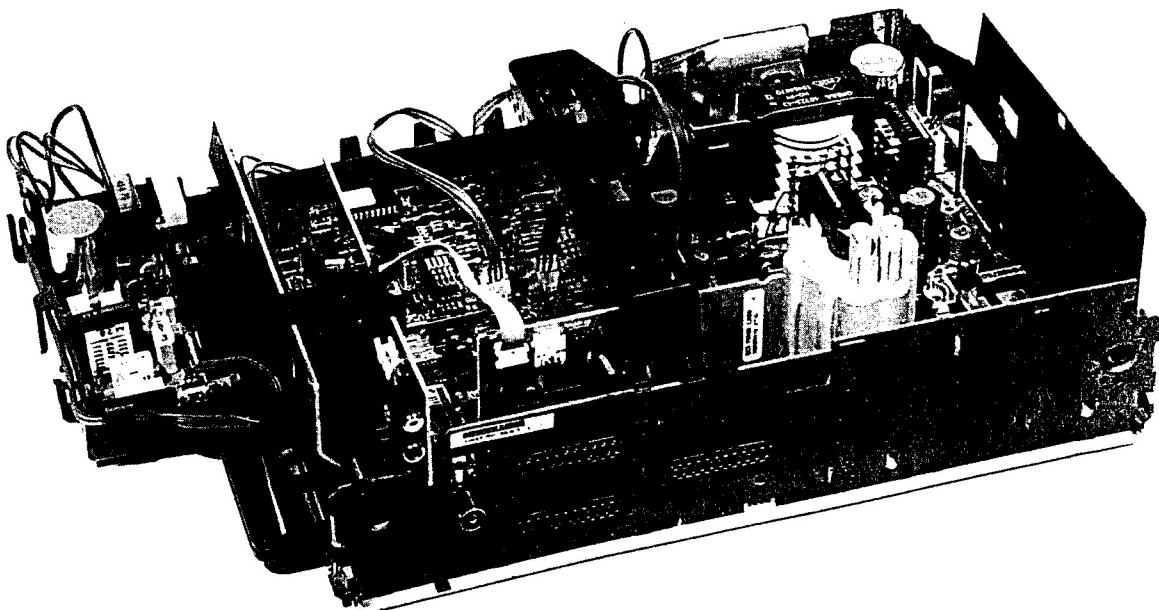
TV



SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA

ICC19 100 Hz

ICC19 B5B40240 00
B5BB0240 00
B5D80240 00
B5D80740 00
B5E80640 00
B5E80740 00
B5F80240 00



WARNING : Before servicing this chassis read the safety recommendations.
ATTENTION : Avant toute intervention sur ce châssis, lire les recommandations de sécurité.
ACHTUNG : Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.
ATTENZIONE : Prima di intervenire sullo chassis, leggere le norme di sicurezza.
IMPORTANTE : Antes de cualquier intervención, leer las recomendaciones de seguridad.



Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol gekennzeichnet) nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione degli elementi di sicurezza (marcati con il segno) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità" del costruttore.

La sustitución de elementos de seguridad (marcados con el símbolo) por componentes no homologados según la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

RECEIVER : On UHF input level : 1 mV, bar test pattern :

- PAL, I standard, 100% white.

Via the scart socket, input level : 1 Vpp, bar test pattern :

Colour, contrast and brightness at mid-position, sound at minimum.
Programme selected : PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

RECEPTEUR : En UHF, niveau d'entrée 1 mV mire de barres

- SECAM, Norm L, Blanc 100%.

Par la prise Pététélévision, niveau d'entrée 1 Vcc, mire de barres.

Couleur, contraste, lumière à mi-course, son minimum.
Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

EMPFÄNGER : Bei UHF Eingangsspegel 1 mV, Farbbalken :

- PAL, Norm G, Weiss 100%.

Über die Scartbuchse : Eingangsspegel 1 Vss, Farbbalken :

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.
Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.

RICEVITORE : In UHF, livello d'entrata 1 mV, monoscopio per barre :

- PAL, norma G, bianco 100%.

Par la presa SCART, livello d'entrata 1 Vcc, monoscopio per barre :

Colore, Contrasto, Luce a metà corsa, Suono minimo.
Programma designato PR 01.

Tensioni continue rilevate rispetto alla massa con un voltmetro numerico.

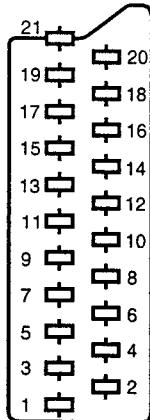
RECEPTOR : En UHF, nivel de entrada 1 mV, mira de barras :

- PAL, norma G, blanco 100%.

Por la toma Pentelevision, nivel de entrada 1 Vpp mira de barra.

Color, Contraste, luz a mitad de carrera, Sonido minimo.
Programa afectado PR 01.

Tensiones continuas marcadas en relación a la masa con un voltímetro digital.



NOTE : **MAIN** ... etc. identifies each pcb module.

NOTE : **MAIN** ... etc. repères des platinas constituant l'appareil.

HINWEIS : **MAIN** ...usw.

Kennzeichnung der Platinen, aus denen das Gerät zusammengesetzt ist.

NOTA : **MAIN** ... ecc. indicazioni delle piastre che costituiscono l'apparecchio.

NOTA : **MAIN** ... etc. marcas de las placas que constituyen el aparato.

		ENGLISH	FRANÇAIS	DEUTSCH	ITALIANO	ESPAÑOL
1	→	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
2	→	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
3	→	AUDIO "L"	AUDIO "G"	AUDIO "L"	AUDIO "S"	AUDIO "I"
4	—	AUDIO	AUDIO	AUDIO	AUDIO	AUDIO
5	—	" BLUE "	" BLEU "	" BLAU "	" BLU "	" AZUL "
6	→	AUDIO "L" MONO	AUDIO "G" MONO	AUDIO "L" MONO	AUDIO "S" MONO	AUDIO "I" MONO
7	→	" BLUE "	" BLEU "	" BLAU "	BLU	AZUL
8	→	SLOW SWITCH	COMMUT. LENTE	AV UMSCHALTUNG	" COMMUTAZIONE LENTA "	" COMMUTACION LENTA "
9	—	" GREEN "	" VERT "	" GRÜN "	" VERDE "	" VERDE "
10	NC					
11	→	" GREEN "	" VERT "	" GRÜN "	" VERDE "	" VERDE "
12	NC					
13	—	" RED "	" ROUGE "	" ROT "	" ROSSO "	" ROJA "
14	NC					
15	→	" RED "	" ROUGE "	" ROT "	" ROSSO "	" ROJA "
16	→	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	" COMMUTAZIONE RAPIDA "	" COMMUTACION RAPIDA "
17	—	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
18	—	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	" COMMUTAZIONE RAPIDA "	" COMMUTACION RAPIDA "
19	→	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
20	→	VIDEO OR "SYNC"	VIDEO SYNCHRO	VIDEO ODER SYNCHRO	VIDEO O SINCRON	VIDEO O SINCRON
21	→	PLUG SCREEN BOX	BLINDAGE PRISE	ABSCHIRMUNG DES STECKERS	ARMATURA DELLA SPINA	BLINDAJE DEL ENCHUFE

→ : OUTPUT - SORTIE - AUSGANG - USCITA - SALIDA

→ : INPUT - ENTRÉE - EINGANG - ENTRATA - ENTRADA

— : EARTH - MASSE - MASSE - MASSA - MASA

INFORMATION - INFORMATIONS - INFORMATIONEN - INFORMAZIONE - INFORMACIONES

CHASSIS DESIGNATION - DESIGNATION DES CHASSIS - BEZEICHNUNG DES CHASSIS - DESCRIZIONE DEI TELAI - DESIGNACIÓN DE LOS CHASIS

(B)

The references mentioned on the cover give the list of chassis covered in the present document.

The designation of a specific chassis equipping the receptor is marked on the identification plate placed at the back of the apparatus.

(F)

Les références indiquées en couverture donnent la liste des chassis traités dans le présent document.

La désignation d'un chassis spécifique équipant le récepteur est inscrite sur la plaque signalétique située à l'arrière de l'appareil.

(D)

Die auf dem Deckblatt angegeben Nummern sind die in dieser Unterlage enthaltenen Chassis

(I)

I riferimenti indicati in copertina danno la lista dei telai trattati nel presente documento.

La descrizione di un telaio specifico installato sul ricevitore figura sulla targa delle caratteristiche situata sulla parte posteriore dell'apparecchio.

(E)

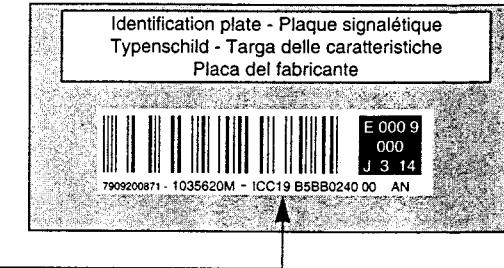
Las referencias indicadas en la cubierta dan la lista de los chasis tratados en el presente documento.

La designación de un chasis específico que equipa el receptor se inscribe en la placa del fabricante, situada en la parte trasera del aparato.

ICC19	B5BB0240 00	B5B5F80240 00	B5E80740 00
-------	-------------	---------------	-------------

specific chassis
chassis spécifique
Spezielles Chassis
telaio specifico
chasis específico

list of the chassis in the documentation
liste des chassis de la documentation
Aufstellung über die in dieser Unterlage enthaltenen Chassis
lista dei telai della documentazione
lista de los chasis de la documentación



RECEIVER COMPOSITION - COMPOSITION DES RECEPTEURS - BESTÜCKUNG DER EMPFÄNGER - COMPOSIZIONE DEI RICEVITORI - COMPOSICIÓN DE LOS RECEPTORES

Chassis identification table:

- 1- Main chassis designation code
- 2- Chassis configuration (modules) and the page number's where they are described.
- 3- The chassis - environment pair that are contained in the receptors described in the present documentation.

Le tableau ci-dessous regroupe :

- 1- La désignation des chassis
- 2- L'environnement électronique de chaque chassis (modules) et le numéro de page où il est décrit.
- 3- L'association chassis-environnement composant les récepteurs décrits dans la présente documentation.

Die nachfolgende Tabelle beinhaltet:

- 1 - Die Chassisbezeichnung
- 2 - Die elektrischen Baugruppen (Module) der Chassis und die Seitenzahl auf der sie abgebildet sind.
- 3 - Die Chassis und Module der Empfänger aus dieser Dokumentation.

La tabella qui di seguito contiene:

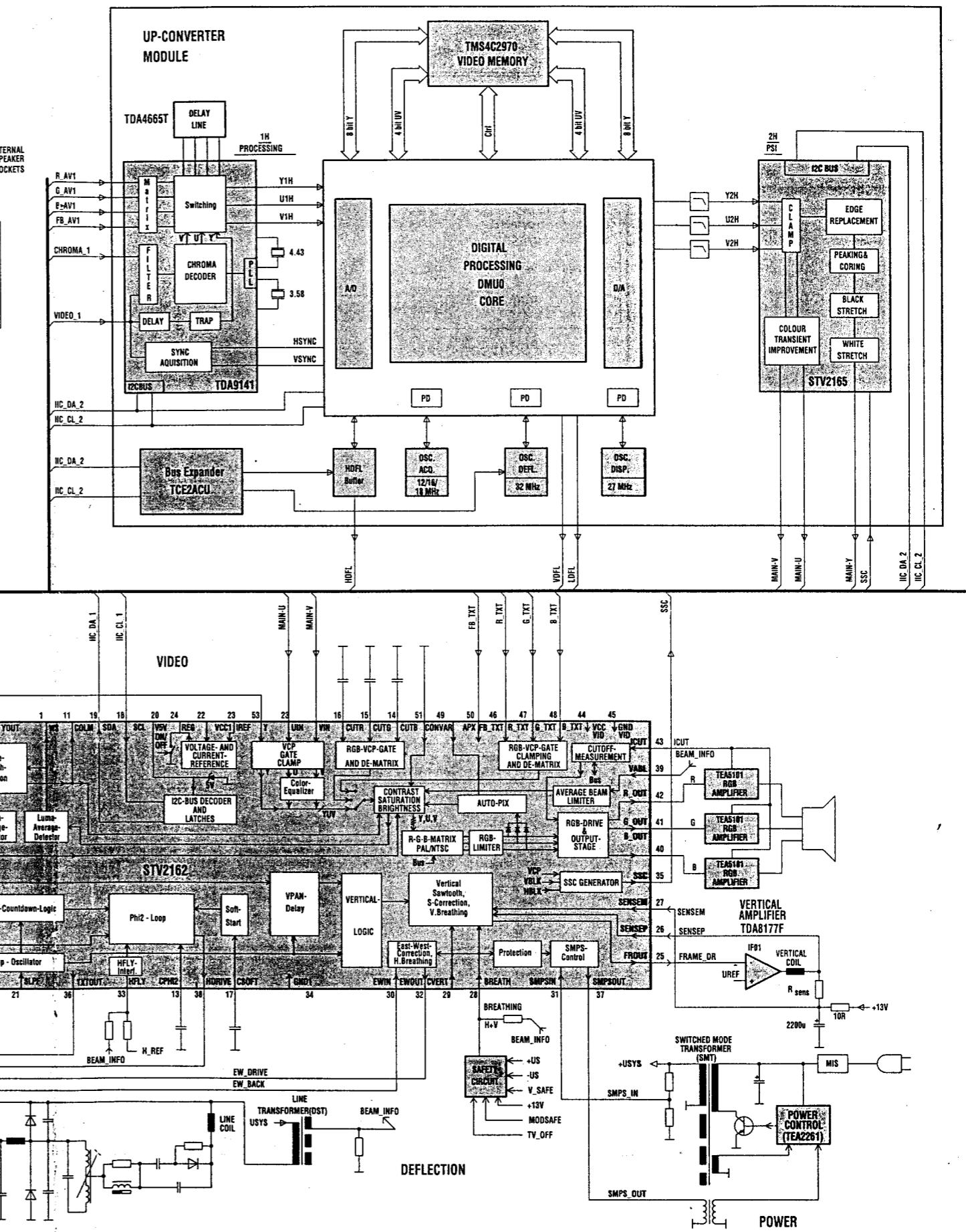
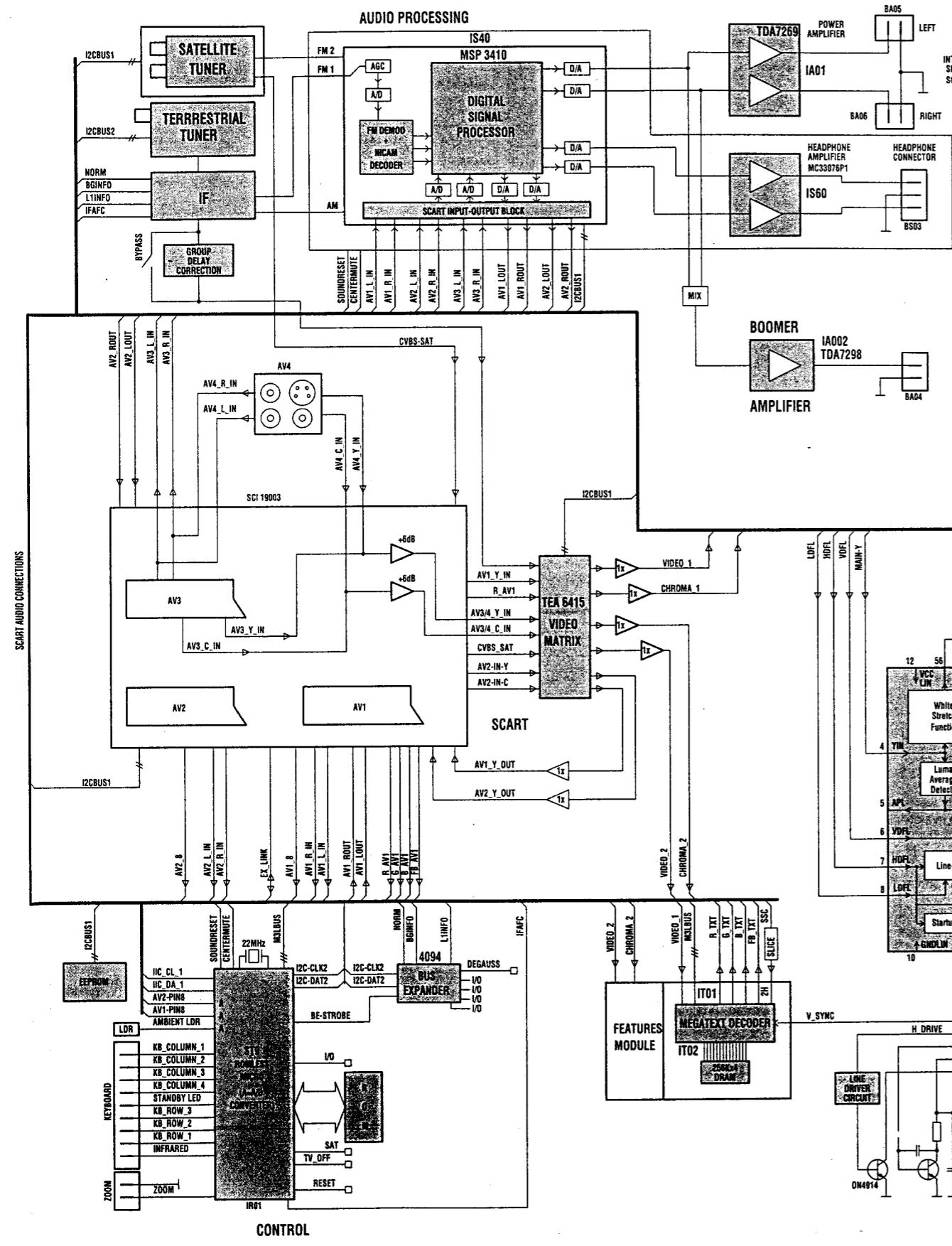
- 1 - La descrizione dei telai
- 2 - La configurazione di ogni telaio (moduli) e il numero di pagina nella quale è descritto
- 3 - L'abbinamento telaio-struttura che compone i ricevitori descritti nella presente documentazione

El cuadro siguiente agrupa:

- 1 - La designación de los chasis
- 2 - El entorno electrónico de cada chasis (módulos) y el número de página donde está descrito.
- 3 - La asociación chasis - entorno que compone los receptores descritos en la presente documentación

ICC19 100 Hz

DESCRIPTION CHASSIS	BLOCK DIAGRAM	ADJUST. MAIN	PCB MAIN	SCHEMA MAIN	VIDEO MODULE	CRT MODULE	AUDIO MODULE	TELETEXT MODULE	SCART MODULE	KDB - FCB KB
ICC19 B5B40240 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	39 to 41	42 to 44	45 to 47	48 to 50
ICC19 B5BB0240 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	39 to 41	42 to 44	45 to 47	48 to 50
ICC19 B5D80240 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	39 to 41	42 to 44	45 to 47	48 to 50
ICC19 B5D80740 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	51 to 54	42 to 44	45 to 47	48 to 50
ICC19 B5E80640 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	39 to 41	42 to 44	45 to 47	48 to 50
ICC19 B5E80740 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	51 to 54	42 to 44	45 to 47	48 to 50
ICC19 B5F80240 00	5 to 6	7 to 16	17 to 23	24 to 30	31 to 35	36 to 38	39 to 41	42 to 44	45 to 47	48 to 50



Do not disconnect modules
Repairs on power supply
only with isolating transformer

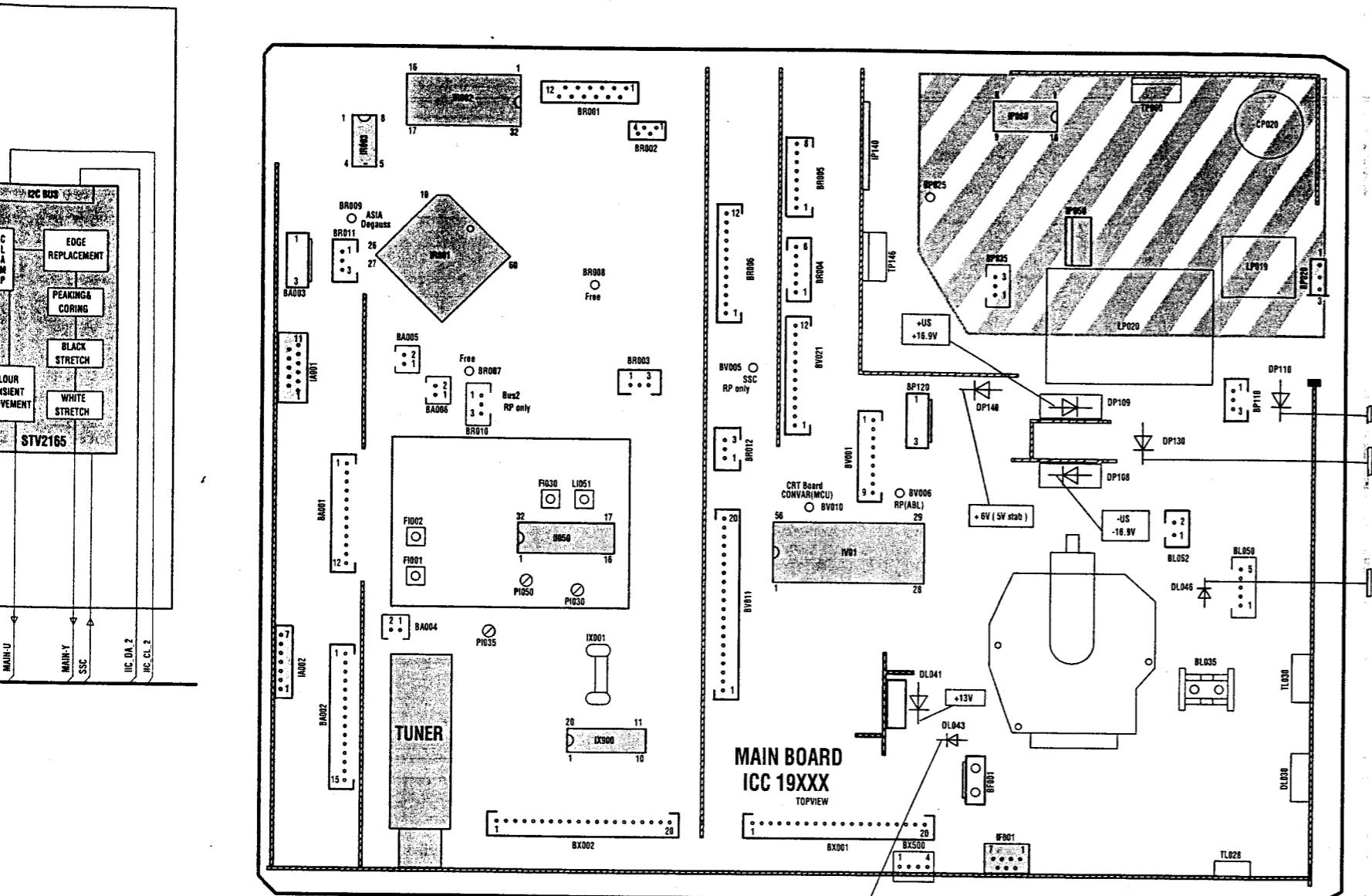
Ne pas retirer les modules
N'effectuer les travaux de
réparation sur le secteur (Switch
transformator d'isolation)

Module nicht bei eingeschalteter
Netzspannung reparieren
Reparaturarbeiten am Netzteil
nur mit Isolationstransformator

Non scollegare i moduli quando
intraprendere riparazioni su
con transformatore isolante

No desconectar los módulos
Las reparaciones en la sección
deben ser ejecutadas solarmente
separación.

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES -
SERVICE LAGEPLAN - POSIZIONE REGULATORI DI SERVIZIO -
SITUACIÓN DE LOS AJUSTES



Do not disconnect modules when they are energized !
Repairs on power supply section are to be carried out only with isolating transformer.

Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseitedes Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red

Ne pas retirer les modules lorsqu'ils sont sous tension.
N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch mode) qu'au travers d'un transformateur d'isolation.

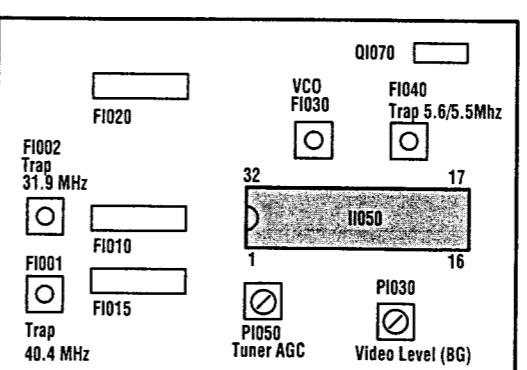
Module nicht bei eingeschaltetem Gerät entfernen !
Servarbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare moduli quando sono alimentati !
Intraprendere riparazioni sulla sezione alimentazione solo con transformatore isolante.

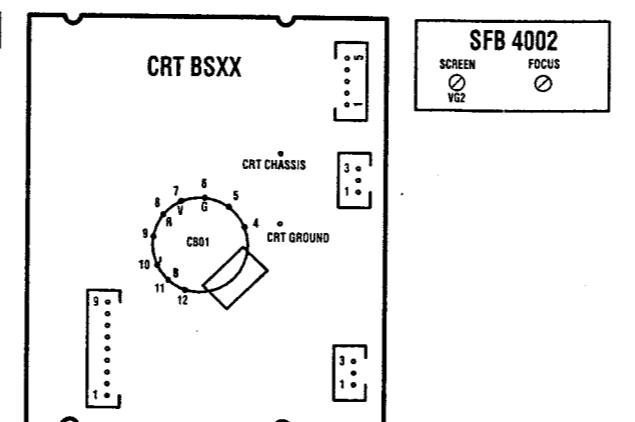
No desconectar los módulos cuando están activados !
Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

U Sys	SERVICE MODE	Standard TV - Settings : OMA Position TV to AV1 : Black test pattern		<table border="1"> <thead> <tr> <th>TUBE NAME</th><th>DESCRIPTION</th><th>Usys jumper</th><th>Usys</th></tr> </thead> <tbody> <tr> <td>A66EGW 48X322</td><td>4/3 28° MP</td><td>JP915</td><td>134V +/- 0.5V</td></tr> <tr> <td>A59EGD 048X322</td><td>4/3 25° SF</td><td>JP914</td><td>137V +/- 0.5V</td></tr> <tr> <td>A68EGD 038X322</td><td>4/3 29° SF</td><td>JP914</td><td>137V +/- 0.5V</td></tr> <tr> <td>A68EE5038X322</td><td>4/3 29° SF</td><td>JP914</td><td>137V +/- 0.5V</td></tr> <tr> <td>W66EGV023X122</td><td>16/9 28° SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr> <tr> <td>W76EGV023X122</td><td>16/9 32° SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr> <tr> <td>W76EGV023X122</td><td>16/9 28° SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr> <tr> <td>W76EGX023X122</td><td>16/9 32° SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr> </tbody> </table>	TUBE NAME	DESCRIPTION	Usys jumper	Usys	A66EGW 48X322	4/3 28° MP	JP915	134V +/- 0.5V	A59EGD 048X322	4/3 25° SF	JP914	137V +/- 0.5V	A68EGD 038X322	4/3 29° SF	JP914	137V +/- 0.5V	A68EE5038X322	4/3 29° SF	JP914	137V +/- 0.5V	W66EGV023X122	16/9 28° SF	JP915	134V +/- 0.5V	W76EGV023X122	16/9 32° SF	JP915	134V +/- 0.5V	W76EGV023X122	16/9 28° SF	JP915	134V +/- 0.5V	W76EGX023X122	16/9 32° SF	JP915	134V +/- 0.5V
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IF Alignment	FI030	Switch set to standard BG		Adjust FI030 / PI54 for 2,5VDC +/- 0.1V																																				
VCO Standard BG		IF Signal 38.9 MHz (BG)																																						
VIDEO-LEVEL Alignment	PI030 PI035	Standard Signal (BG / L) 15kHz test pattern		Adjust PI030 : standard BG Adjust PI035 : standard L for V = 0,7 Vpp (Black/white level)																																				
U G2	METHOD 1 Measurment method	G2 poten- tiometer		Standard TV - Settings : OMA Position TV to AV1 : Black test pattern																																				
				CRT 1910X (100Hz) : R signal : IB01 Pin 15 G signal : IB03 Pin 15 B signal : IB02 Pin 15																																				
	METHOD 2 Cutoff counter method	SERVICE MODE		1 - Adjust VG2 : V= 160V +/- 5 V 2 - Adjust Focus 3 - Adjust VG2 : V= 160V +/- 3V																																				
	SERVICE MODE	Standard TV - Settings : OMA Position No test pattern (generated by internal text processor).		Select "Restore" in Service Mode and press "OK" to restore the cut-off values.																																				
FOCUS	FOCUS			Sharp picture																																				



PI035



SERVICE MODE

GB

MODE SERVICE

F

I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - SERVICE - EIN-AUSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

I ACCESSING SERVICE MODE

TV Control Panel Access

- Turn "Off" the TV using the ON/OFF button.
- Press the PR- and VOL- buttons, hold them down and switch "On" the TV with the ON/OFF button.
- After the normal switch on time the main service menu appears on the screen.

Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

△ UP ▽ DOWN □ SELECT

I ACCES AU MODE SERVICE

- Arrêter le TV avec la touche M/A.
- Tout en appuyant sur les touches PR - et VOL -, mettre le TV en service à l'aide de la touche M/A.
- Maintenir enfoncées les touches PR - et VOL -.

Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

△ UP ▽ DOWN □ SELECT

Note :

In service mode :

- The child lock function is re-initialized.
- The lock function (PIN Number) is ignored.
- Clear any wake-up/sleep timers.
- Pin 8 of the scart plug has to be ignored.
- AV-Link WSS detection, EPG and Teletext have to be disabled.
- Automatic stand-by functions, in case of no antenna signal have to be disabled.
- Contrast, colour, brightness : factory settings.
- Sharpness : middle (nominal).
- Contrast expander to low.
- Install Mode disabled.
- Default format and zoom..

Note :

En mode service:

- Le verrouillage parental est effacé (réinitialisé).
- La fonction de verrouillage (Pin number) est ignorée.
- La programmation des heures «veille/matin» est annulée.
- Possibilité de passer en mode service avec commutation lente active.
- AV-Link, la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.
- La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.
- Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.
- Le contour est appelé à sa valeur moyenne.
- L'expansion contraste est au niveau bas.
- Le mode d'installation et l'ambiance «Light sensor» ne sont pas valides.
- Zoom et format ignorées.

2 TEMPORARY EXIT FROM SERVICE MODE

- Press Exit on the Remote control.
- Everyday use menu can be accessed via Menu button.

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 EXITING FROM SERVICE MODE

- Remote Control
- TV control panel
- on/off key or Stand-by

- Go to the point QUIT in the Field service Mode main menu.

- Stand-by function or «off» with on/off key.

- Press «<>», «OK» or «>>» button

- Press «VOL.+» button

- TV mode.

Values or adjustments are not stored before exiting from service mode will not be written into the NVM

- télécommande
- clavier du téléviseur
- Inter M/A ou Stand-by

- Aller au point «QUIT» dans le menu principal du mode service.

- Fonction Stand-by ou «off» par M/A

- Appuyer sur «<>», «OK» ou «>>»

- Appuyer sur «VOL+»

- Mode TV.

Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

SERVICE - MODE

D

SERVICE - EIN-AUSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE

I EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- Fernsehgerät über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.

Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

△ UP ▽ DOWN □ SELECT

SERVICE - MODE

I

SERVICE - MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

I ACCESSO AL SERVICE MODE

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti PR- e VOL- accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti PR- e VOL -.

Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

△ UP ▽ DOWN □ SELECT

MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA/PARADA.
- Pulse los botones PR - y VOL - sin soltarlos.
- Libere los botones PR - y VOL -.

Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

△ UP ▽ DOWN □ SELECT

Nota :

En modo servicio:

- Se ignora la función de bloqueo y se inicializan los niños.
- Anula todas las horas programadas.
- La patilla 8 del SCART es ignorada.
- La detección WSS AV Link, EPG, y Teletext se desactiva.
- El contraste, color y brillo son puestos a los niveles medios.
- La nitidez es puesta al punto medio.
- La expansión de contraste al nivel bajo.
- Modo Instalación es desactivado.
- Zoom y formato ignorados.

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

Auf der Fernbedienung EXIT drücken.

Mit der Taste Menü gelangen Sie zum Menü Übersicht

Mit der blauen Taste gelangen Sie zum Service-Menü.

2 USCITA TEMPORANEA DAL SERVICE MODE

Premere Exit sul telecomando.

Al menu di uso quotidiano si accede attraverso il pulsante Menu.

È possibile rientrare nel Menu Field Service attraverso il pulsante Blue.

- Pulse Salir en el mando a distancia.
- Con el botón Menú puede acceder al menú de uso diario.

Puede entrar al Menú Servicio con el botón azul.

2 SALIDA TEMPORAL DEL MODO SERVICIO

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung

TV-Bedienfeld

EIN / Aus - Taste

- Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht
- Mit Standby-Funktion oder EIN/AUS - Taste ausschalten

- Taste «<>», «OK» oder «>>» drücken

- Taste «VOL+» drücken

- TV Modus

Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentenspeicher übernommen

3 USCIRE DAL SERVICE MODE

telecomando

Panel control TV

Tasto on/off di

- Andare al punto QUIT nel Modo Field service del Menu principale
- Funzione Stand-by o «off» con il tasto on/off

- Premere «<>», «OK» o «>>»

- Premere «VOL+»

- Modo TV.

Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

3 SALIDA DEL MODO SERVICIO

telecomando

Panel de control TV

- Vaya al punto QUIT del menú principal de modo Servicio
- Pulse el botón «<>», «OK» o «>>»
- Pulse el botón «VOL+»

- Modo TV.

Los valores o ajustes no se guardan en modo servicio y no se escriben en el modo servicio.

MODO SERVICIO

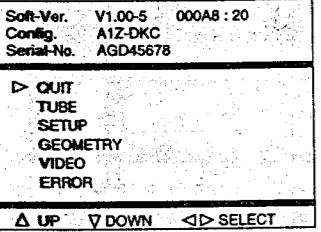
E

MODO SERVICIO

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones PR - y VOL - y sin soltarlos, pulsar la tecla MARCHA:PARADA.
- Libere los botones PR - y VOL -.



Nota :

- En modo servicio:
 - Se ignora la función de bloqueo y se inicializa la función "cerradura niños".
 - Anula todos las horas programadas
 - La patilla 8 del SCART es ignorada
 - La detección WSS AV Link, EPG, y Teletext son desactivados.
 - El apagado automático en caso de ausencia de señal de antena es desactivado.
 - El contraste, color y brillo son puestos a los valores de fábrica.
 - la nitidez es puesta al punto medio.
 - La expansión de contrast al nivel bajo
 - Modo Instalación es desactivado.
 - Zoom y formato ignorados.

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

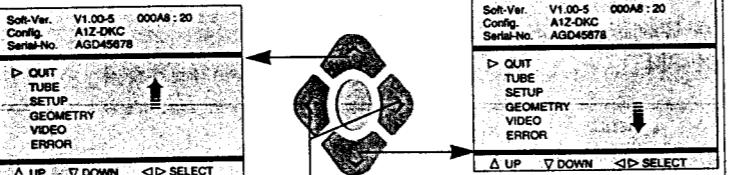
3 SALIDA DEL MODO SERVICIO

- telecomando
- Panel de control TV
- Tecla on/off de
- Vaya al punto QUIT del menú principal de modo Servicio
- Función Stand-by o desconexión (off) con tecla on/off.
- Pulse el botón <<, >>, <<OK>>
- Pulse el botón VOL+/-

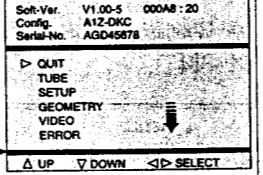
Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE SUCHE IN SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA



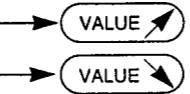
Navigation up



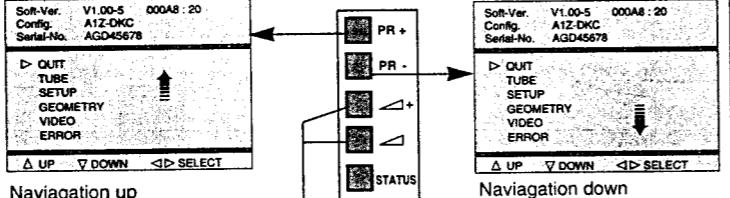
Navigation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

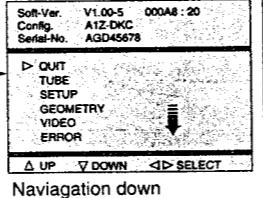
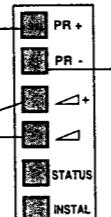
- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor



2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE



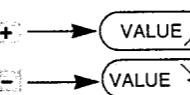
Navigation up



Navigation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

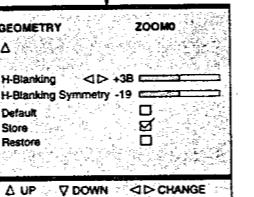
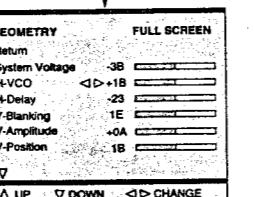
- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor



Changing page - Changement de page Seitenwechsel - Cambiare Pagina - Cambio de página

End of page
Fin de page
Am Seitenende
Fine della pagina
Fin de página

Beginning of Page
Début de page
Am Seitenanfang
Inizio della pagina
Comienzo de página

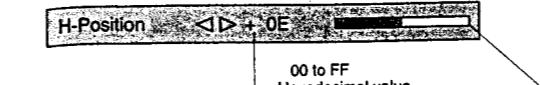


« ▽ »
Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

« △ »
Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

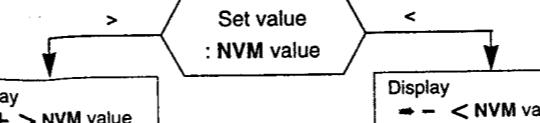
- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par « ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ », « △ » zum Seitenwechsel
- Il cursor su « ▽ », « △ » cambia pagina.
- Cursor en « ▽ », « △ » cambia las páginas

3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLUNGSWERTS VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE VISUALIZACION DEL VALOR DE AJUSTE



00 to FF
Hexadecimal value
valeur hexadécimale
Einstellungswert hexadezimal
Valore esadecimale
Valor hexadecimale

bargraph



Set value
: NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS EIN-UND AUSSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) the box.

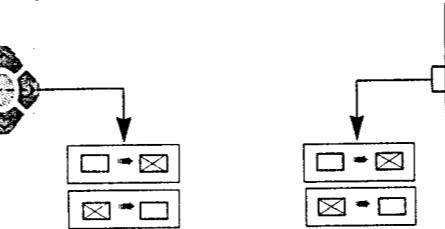
Pour valider une fonction cocher la case correspondante

Zum Implementieren einer Funktion das Kontrollkästchen aktivieren (ankreuzen)

Per implementare una funzione di verifica, (vistare) la casella

Para poner en funcionamiento una función verifique (señale) la casilla

: Implemented function : No implemented function



5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZAZIONE VALORI - VALORES ALMACENADOS EN LA MEMORIA

After setting, the values are stored in NVM.

Après réglages les valeurs sont mémorisées en NVM.

Nach dem Einstellen werden die Werte im NVM gespeichert.

Dopo la regolazione i valori vengono memorizzati in NVM.

Después del ajuste, los valores son almacenados en NVM

The box becomes

During alignment, values are temporarily stored in RAM.

En cours d'alignement les valeurs sont mémorisées temporairement en RAM

Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert

Durante l'allineamento i valori vengono memorizzati provisoriamente sulla RAM

Durante el alineamiento, los valores son almacenados temporalmente en RAM

Store Copies RAM values into NVM
Copie la valeur RAM en NVM
Kopieren des Werts von RAM nach NVM
Copiare i valori RAM in NVM
Copiar valores RAM en NVM

Restore Copies all values from NVM into RAM.
Copie toutes les valeurs des données NVM en RAM
Kopiert alle NVM-Datenwerte in den RAM
Copiare tutti i valori da NVM sulla RAM
Copiar todos los valores de NVM a RAM

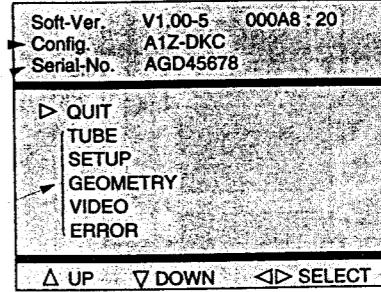
ROM Default All the default values of a page in use are stored in RAM.
L'ensemble des valeurs par défaut d'une page courante est chargé en RAM.
Sämtliche Standardwerte der aktuellen Seite werden im RAM geladen.
Tutti i valori di default di una pagina in uso vengono memorizzati sulla RAM.
Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE

1 MAIN MENU - MENU PRINCIPAL

Software Version
Version software
Software Version
Versione software
Visualización del valor de ajuste

Counter
Compteur
Zähler
Contador
Contatore



Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Búsqueda en el Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURACION DEL TV - CONFIGURACIÓN Y TV

Config. A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W»=16/9
Character 2 : Chassis type : «5» = 50Hz, «1» = 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambient Sensor : «S»=detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

The counter indicates the TV's number of service hours. It counts from 0 to 65535 hours.

The display is hexadecimal.

Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.

Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb ist. Die Anzeige ist hexadecimale.

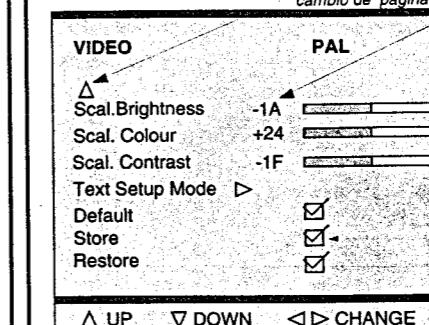
Il contatore indica il numero di ore di servizio del TV. Puo' contare da 0 a 65535. La visualizzazione è esadecimale.

El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU

Change the page
Changement de page
Seitenwechsel
cambio de pagina
cambio de página

Hexadecimal value
Valeur hexadécimale de réglage
Abgleichwerte hexadecimale
Valore di regolazione esadecimale
Valor del ajuste en hexadecimale



Bargraph
Bargraph de réglage
Bargraph
Barra grafica di regolazione
Barra gráfica del ajuste

Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función

Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - PROCEDIMIENTO DE ALINEACION

TUBE	
Return	
Tube type	A66ECY...
Store	<input checked="" type="checkbox"/>
Restore	<input type="checkbox"/>
△ UP ▽ DOWN □ ▷ SELECT	

SETUP	
Return	
OSD Position	-20
PIN Erase	<input checked="" type="checkbox"/>
Clear Prog.	<input checked="" type="checkbox"/>
Standard	Pan-Euro ...
WSS	<input checked="" type="checkbox"/>
△ UP ▽ DOWN □ ▷ CHANGE	

page 1

SETUP	
△	Text Lang. 1
Text Lang.	1
Ext.HIFI/Dolby Ext.	<input checked="" type="checkbox"/>
IR Download	<input type="checkbox"/>
Default	<input type="checkbox"/>
Store	<input checked="" type="checkbox"/>
Restore	<input type="checkbox"/>
△ UP ▽ DOWN □ ▷ CHANGE	

page 2

GEOMETRY	FULL SCREEN
Return	
System Voltage	-3B
H-VCO	<input checked="" type="checkbox"/>
H-Delay	-23
V-Blanking	1E
V-Amplitude	+0A
V-Position	1B
△ UP ▽ DOWN □ ▷ CHANGE	

page 1

Test Bar pattern used : 4/3 with geometric circle. Adjust separate for 4/3 and 16/9 format. See annexed

GEOMETRY	ZOOM1
△	V-Linearität -3B
V-Linearität	-3B
H-Position	<input checked="" type="checkbox"/>
H-Amplitude	-19
EW-Amplitude	+1C
EW-Trapezium	2B
EW-Shape	1D
△ UP ▽ DOWN □ ▷ CHANGE	

page 2

VIDEO	PAL
Return	
Normalise User Settings	<input checked="" type="checkbox"/>
G2 Alignment mode	<input type="checkbox"/>
R-Cut off	+1B
G-Cut off	-1F
R-Drive	+3A
G-Drive	-3B
B-Drive	
Peak-White	
△ UP ▽ DOWN □ ▷ CHANGE	

page 1

Color standard or RGB is autodetected and displayed opposite the displayed opposite the menu title.

VIDEO	PAL
△	Scal.Brightness -1A
Scal. Colour	+24
Scal. Contrast	-1F
Text Setup Mode	<input type="checkbox"/>
Default	<input checked="" type="checkbox"/>
Store	<input checked="" type="checkbox"/>
Restore	<input checked="" type="checkbox"/>
UP ▽ DOWN □ ▷ CHANGE	

page 2

TUBE	
Return	Closes the submenu and the main Field Service Mode menu appears.
Tube type	Retourne au menu principal.
Verlassen des Untermenüs	Verlassen des Untermenüs
Chiude il sottomenu e fa apparire il menu principale Field Service Mode.	Chiude il sottomenu e fa apparire il menu principale Field Service Mode.
Cierra el submenú. El menú Field Service Mode aparece.	Cierra el submenú. El menú Field Service Mode aparece.
Press </>: remote control; Vol. +/- : TV keyb.	Press </>: remote control; Vol. +/- : TV keyb.

Tube type
Define the right tube after changing the NVM. 6 characters
New type tube values (with default video and geometry) are immediatly active
Variable geometry and video parameters are put into NVM when the Store feature is selected. See below tube list.

Definit le tube exact après changement de NVM.
Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite.
Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

Den Bildröhrentyp auswählen.
Die Geometrie- und Videodefault Werte werden sofort in das NVM geladen.
Bildrohrlistung : siehe unten.

Definire il tubo appropriato dopo aver cambiato il NVM. 6 caratteri i valori per il nuovo tipo di tubo (con video e forma di default) sono immediatamente attivi. I parametri per video e forma variabili vengono immessi nel NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.

Definir el tubo correcto después de haber cambiado el NVM. 6 caracteres. Los nuevos valores de tipo de tubo (con la video y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y video se graban en el NVM al seleccionar la función Store. Vea más arriba la lista de tubos.

Default tube type :
100Hz A66EGW 48X322 : A66EGW
4/3 28"MP, invar, vector gun, BSVM

→ After setting → Store (+)

SETUP			
Return	Closes the submenu and the main Field Service Mode menu appears.		
Text Lang.	Teletext language :		
0 English	1 Polish	2 English(US)	3 English
German	German	German	German
Swedish	Swedish	Swedish	Swedish
Italian	Italian	Italian	Italian
French	French	French	French
Portug.	SerboCroat	Portug.	Portug.
Czech/Slov.	Czech/Slov.	Czech/Slov.	Turkish
Romanian	Romanian	English(UK)	-

EXT.HIFI / Dolby Ext.
Dolby Internal Not available on Normal Sound TV's
Only possible via the local keyboard Vol +/- .
Einstellung nur über die Bordbedienung möglich
Lautstärke +/-

Selection : Long press: ~5s
Press </>/OK: remote control; Vol. +/- : TV keyb.
Löschen des PIN Code durch längeres (~ 5s) drücken der Taste >oder<.
Automatically stored

Clear Prog.

Clears all programmes stored in the memory. Analogous values SOUND PICTURE : factory values.

Return the TV to "out of factory mode.

Selection : Long press: 2,5s

Efface tous les programmes mémorisés. valeurs SON et IMAGES: valeurs usines.

Pour sortir des valeurs usine :

Selection : Long press: 2,5s

Setzt das Gerät in die Werksgrundeinstellungen. Es erscheint nach dem erneut.

Einschalten das Installationsmenü.

Clear Prog.

Cancela tutti i programmi in memoria. Valori analogici SUONO IMMAGINE:valori di fabbrica.

Riportare la TV al modo selezione: pressione prolungata: 2,5 sec.

Programa de borrad.

Borra todos los programas almacenados en la memoria. Valores análogos de

SOUND PICTURE: valores de fábrica. Regreso a la TV para "salir del modo fábrica". Selección: Presión larga igual a 2,5 s.

active-aktiv No active-inaktiv

Standard "Pan-Euro" or "I".

BG PAL SECAM, L SECAM (France), DKK SECAM, NTSC M, I PAL (UK/IRELAND)

WSS Detection "auto-surround" and "format" via Teletext line 23.

Selection of WSS Processing is valid for all programs.

Sélection du processus WSS valide pour tous les programmes

WSS (nur bei 16:9 oder Dolby)

Auswertung der Zeile 23 zur automatischen Formatumschaltung und Dolby-umschaltung

Rivelazione "auto-surround" e "format" via

televideo alla riga 23. La selezione di WSS

Processing vale per tutti i programmi.

La selezione di WSS Processing vale per tutti i programmi.

Detectación "auto-surround" y "format" a través de la línea 23 de Teletext. La selección del procesamiento WSS es válida para todos los programas.

WSS es válida para todos los programas.

detect.enable- aktiv disable-inaktiv

GEOMETRY	
Return	Closes the submenu and the main Field Service Mode menu appears.
Verlassen des Untermenüs	Verlassen des Untermenüs
Chiude il sottomenu e fa apparire il menu principale Field Service Mode.	Chiude il sottomenu e fa apparire il menu principale Field Service Mode.
Cierra el submenú. El menú Field Service Mode aparece.	Cierra el submenú. El menú Field Service Mode aparece.
Press </>: remote control; Vol. +/- : TV keyb.	Press </>: remote control; Vol. +/- : TV keyb.

System Voltage
Adjustment of the system voltage Usys.
Only possible via the local keyboard Vol +/- .
Einstellung nur über die Bordbedienung möglich
Lautstärke +/-

TUBE NAME	DESCRIPTION	Usys
A66EGW 48X322	4/3 28" MP	134V +/- 0.5V
A59EGD048X322	4/3 25" SF	137V +/- 0.5V
A68EGD038X322	4/3 29" SF	137V +/- 0.5V
A68EES038X322	4/3 29" SF	137V +/- 0.5V
W66EGV023X122	16/9 28" SF	134V +/- 0.5V
W76EGV023X122	16/9 32" SF	134V +/- 0.5V
W76EGV023X122	16/9 32" SF	134V +/- 0.5V

H-VCO Horizontal - VCO oscillator.

Adjust H_VCO until the speed of the unsynchronised picture gets the slowest.

Agir sur H_VCO pour obtenir une image la plus proche de la synchronisation.

Den H_VCO auf Schwebung einstellen.

Regolare l'H_VCO finché l'immagine non sincronizzata non avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance la velocidad más baja.

default value = 0FH

Press </>: remote control; Vol. +/- : TV keyb.

H-Delay Horizontal delay
Use "+" and "-" to adapt the image

Default

Store

Restore

△ UP ▽ DOWN □ ▷ CHANGE

page 3

→ After setting → Store (+)

GEOMETRY		
V-Linearität		
H-Position		
H-Amplitude		
EW - Amplitude		
EW - Trapezium		
EW - Shape		

Normalise User Settings
Recalls the factory settings for colour, brightness, contrast and sharpness and sets contrast expand to "low".

Factory settings recalled

User settings kept.

G2 Alignment

Display a special menu:

Adjust R-Cut off and G-Cut off to 80H temporary.

Return R=6B G=60 B=71

Adjust the lowest value with RGB cutoff counters

SCREEN potentiometer to: see table

Es erscheint folgendes Menu. Die R- und G-Cut off Werte für diese Einstellung temporär auf 80H einstellen.

den kleinsten angezeigten Wert mit dem Schirmgitterersteller auf entsprechenden.

wert in der Tabelle abgleichen.

Tube Type Value Tube Type Value

A66EGW 60H W76EGX 60H

A59EGD 50H A80EDM 60H

A68EGD 50H A90AFF 50H

W66EGV 50H RP 4 / 3 -

W76EGV 60H RP 16 / 9 60H

To return video submenu:

Press </>/OK: remote control; Vol. +/- : TV keyb.

Select "Restore" to restore the cut off values.

R-Cut off*

→ After setting → Store (+)

Grey scale test pattern white =100%</

VIDEO	PAL
Scal. Brightness	-1A
Scal. Colour	+24
Scal. Contrast	-1F
Text Setup Mode	▷
Default	<input checked="" type="checkbox"/>
Store	<input checked="" type="checkbox"/>
Restore	<input checked="" type="checkbox"/>
UP	▼ DOWN
DOWN	◀ ▶ CHANGE

page 2

displayed opposite the displayed opposite the menu title.

VIDEO	PAL
Scal. Brightness	+ = 50% ● = 100% Grey scale test pattern white = 100%

ERROR CODE	
Return	
Erase Error Codes	◀ ▶ <input checked="" type="checkbox"/>
CODE	
11	013AF
24	008AO
78	0042A
11	0023F
51	000E3
UP	▼ DOWN
DOWN	◀ ▶ CHANGE

VIDEO	PAL
Scal. Brightness	+ = 50% ● = 100% Grey scale test pattern white = 100%

VIDEO	PAL
Scal. Colour	+ + = nom. PAL (then SECAM +RGB) 75% Colour bar test pattern via RF.

VIDEO	PAL
Scal. Contrast	factory settings.

VIDEO	PAL
Text Set-up Mode	+ + = nom. Set Text Contr. to max.! Adjust Text Gain to get a light output of just >40% of OMA peak white. Fine-adjust with Text Contr. to 40% of light output of OMA Peak White.

VIDEO	PAL
Text Set-up Mode	Beispiel für die Anzeige über die Kontroll LED : Fehlercode 23 Zweimaliges Blinken der LED, kurze Pause Dreimaliges Blinken der LED, lange Pause. Auflistung der Fehlercodes : siehe Liste

VIDEO	PAL
Text Set-up Mode	Memorizzare gli ultimi cinque codici d'errore (differenti tra loro) dopo che ognuno di essi si sarà presentato (attraverso il contatore della durata di esecuzione). L'errore più recente viene visualizzato in cima. La ripetizione del codice di errore in cima alla lista non farà altro che aggiornare la durata di esecuzione. Dal LED della TV vengono segnalati 27 codici d'errore differenti, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un opportuno intervallo di tempo e verrà ripetuto fino a quando il televisore non sarà stato riparato o non si sarà corretto da solo. Ad es.: Il codice d'errore 23 visualizzerà: 2 segnali luminosi con pausa breve 3 segnali luminosi con pausa lunga Per la lista dei Codici d'Errore, si veda la tabella

VIDEO	PAL
Text Set-up Mode	Note : • adjust separate for PAL/NTSC/SECAM and RGB/AV getrennte Einstellung für PAL/SECAM und RGB/AV • After PEAK white adjustment control cut off setting. Repeat the adjustments if necessary. nach der Einstellung von Peak white die Cut off Einstellungen wiederholen → After setting → Store (+) <input checked="" type="checkbox"/>

ERROR CODES

GB

11	1st Audio_MSP doesn't answer
12	2nd Audio_MSP doesn't answer
13	Audio-DSP doesn't answer
14	Video IC STV2161/2 doesn't answer
15	Chroma IC 2151/9143 doesn't answer
16	Upconverter DMU0 doesn't answer
17	Audio (or Dolby) module not detected
18	SCART IC TEA6415C doesn't answer
19	Tuner CTT5000 doesn't answer
21	I2C Bus1 data line held low
22	I2C Bus2 data line held low
23	I2C Bus1 clock line held low
24	I2C Bus2 clock line held low
25	Switched 5V not available
26	Tube doesn't get warm in time
27	Deflection detects >3 times protection (problem detected on "breathing" line)
29	DRAM memory of Megatext defect
33	The PSI chip (STV2165) doesn't answer
34	The NVM (X24C32) chip doesn't answer
35	13V not available
37	Unexpected level on NMI (Interrupt) line found (possible cause : tube flashover)
38	M3L Bus for Megatext is blocked
39	Megatext (SDA5273) doesn't answer
41	bus1 (data line) not recoverable
42	bus2 (data line) not recoverable
43	MCU (Motion Mastering Up-Converter) doesn't answer
44	Convergence IC (Rear Projector) doesn't answer
UP	▼ DOWN
DOWN	◀ ▶ CHANGE

D

11	Audio MSP Prozessor antwortet nicht.
12	Zweiter Audio MSP Prozessor antwortet nicht. (Dolby)
13	Audio DSP Prozessor antwortet nicht. (Dolby)
14	IC STV2161/62 antwortet nicht
15	IC STV2151 / TDA9143 antwortet nicht
16	DMU0 Upconverter (Videomodul) antwortet nicht
17	Audio oder Dolby-modul nicht erkannt
18	TEA6415C antwortet nicht (SCART Schalter)
19	Tuner CTT5000 antwortet nicht
21	I2C Bus1 data line ist auf low
22	I2C Bus2 data line ist auf low
23	I2C Bus1 clock line ist auf low
24	I2C Bus2 clock line ist auf low
25	Geschaltete 5V nicht vorhanden
26	Röhre wird nicht rechtzeitig warm
27	Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29	DRAM des Megatext defekt
33	STV 2165 (PSI 100Hz) antwortet nicht
34	NVM Chip antwortet nicht (X24C32)
35	+13V nicht vorhanden
37	Unerwarteter Zustand an NMI (Interrupt) line gefunden. (Mögliche Ursache = Röhren Überschlag)
38	M3L Bus des Megatext blockiert
39	Megatext (SDA 5273) antwortet nicht
41	Bus1 (data line) nicht möglich zu reaktivieren
42	Bus2 (data line) nicht möglich zu reaktivieren
43	MCU (Motion Mastering Up-Converter) antwortet nicht
44	Convergenz IC antwortet nicht (Rear-Projektor)
UP	▼ DOWN
DOWN	◀ ▶ CHANGE

E

11	Procesador de audio MSP no responde
12	Segundo MSP no responde (Dolby)
13	Audio DSP no responde
14	Cir. integrado de video STV2161 ó 2162 no responde
15	Cir. integrado croma ST2151 ó TDA9143 no responde
16	Convertidor de frecuencia de imagen digital DMU0 (Mastering Inteligente) no responde
17	Módulo de sonido (o Dolby) no se detecta
18	Comutador Scart (TEA6415C) no responde
19	Tuner CTT5000 no responde
21	Data 1 del bus I2C permanece en bajo
22	Clock 1 del bus I2C permanece en bajo
23	Data 2 del bus I2C permanece en bajo
24	Clock 2 del bus I2C permanece en bajo
25	No se dispone de los "5v conmutados"
26	El tubo tarda en calentarse
27	La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
UP	▼ DOWN
DOWN	◀ ▶ CHANGE

GEOMETRY MODE ALIGNMENT - 100Hz VERSION

4/3 picture tube

Signal : 4/3 test pattern

4/3 standard mode zoom 0		100Hz Version : overscan V=107% , H=107% 1- Adjust Vertical position and Vertical amplitude 2- Adjust Vertical Blanking and linearity
<4/3> zoom 1		3- Adjust Horizontal position and Horizontal amplitude 4- Adjust EW Amplitude ,EW Shape and Trapezium

16/9 standard mode zoom 0		100 Hz Version : overscan V=120% , H=120% Adjust the vertical height until V = 80%
<16/9> zoom 1		Adjust the vertical height : V = 90%

16/9 picture tube

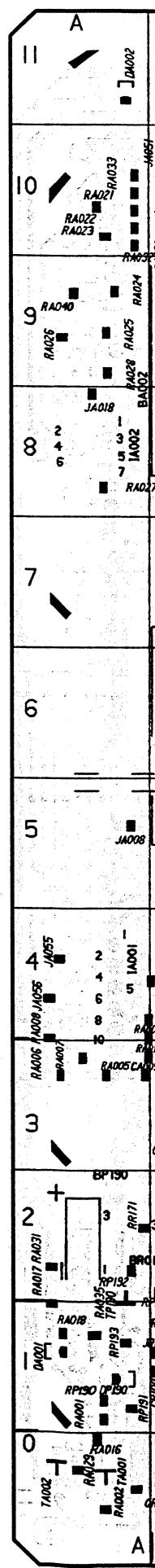
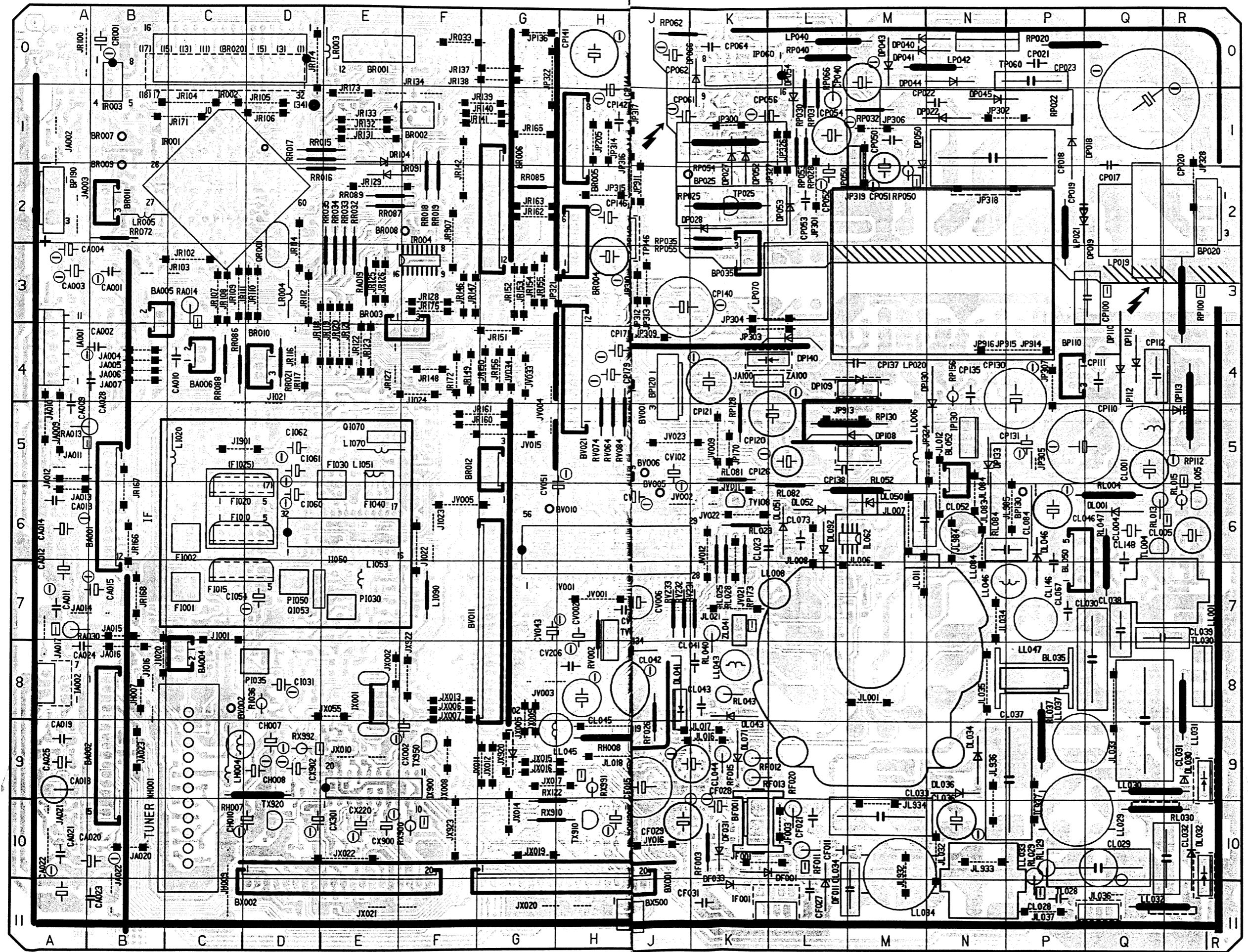
Signal : 4/3 test pattern

16/9 standard mode zoom 0		100Hz Version : overscan V=107%, H =107% 1- Adjust Vertical position and Vertical amplitude 2- Adjust Vertical Blanking and linearity
<16/9> zoom 1		3- Adjust Horizontal position and Horizontal amplitude 4- Adjust EW Amplitude ,EW Shape and Trapezium

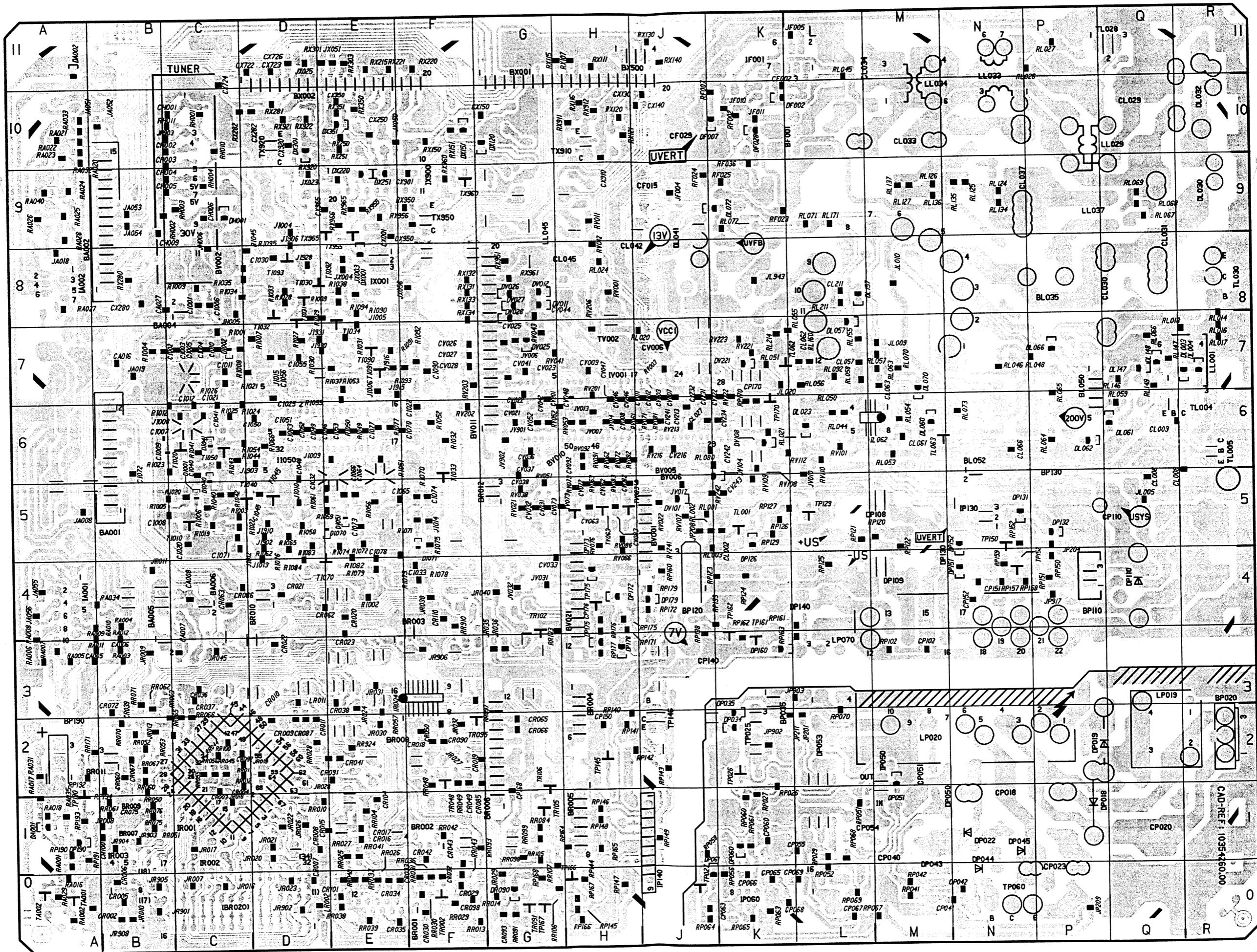
MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPAL PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

SOLDER SIDE



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



COMPONENTS LOCATION - LOCALISATION DES ELEMENTS - LAGE DER BAUTEILE - LOCALIZZAZIONE DEGLI ELEMENTI - LOCALIZACION DE LOS COMPONENTES

* SOLDER SIDE - COTE CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE

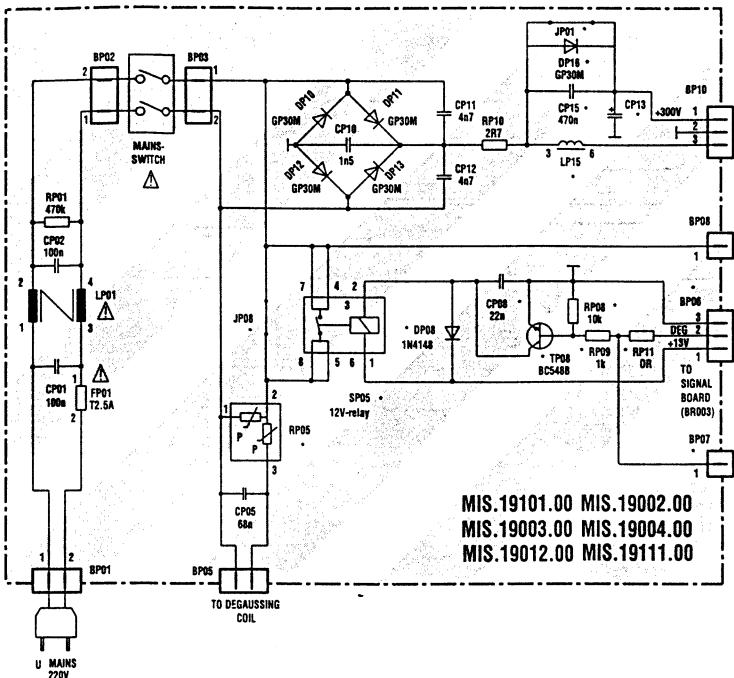
1 2 3

BA001 B6
BA002 B9
BA004 C8
BA005 B3
BA006 C4
BF001 K10
BL002 P8
BL005 P6
BL002 N5
BP002 R2
BP025 J2
BP035 K3
BP110 P4
BP120 J4
BP130 P6
BP190 A2
BR001 E0
BR002 F1
BR003 F4
BR004 H2
BR005 H1
BR006 G2
BR007 B1
BR008 F2
BR009 B2
BR010 D4
BR011 B2
BR012 G5
BV001 J5
BV002 C8
BV005 J6
BV006 J5
BV010 G6
BV011 G7
BV021 H4
BX001 H11
BX002 E11
BX500 J11

CI031 D8
CI032 E5
CI033 F4
CI040 C6
CI041 C6
CI045 D5
CI046 E6
CI049 D6
CI050 D6
CI051 D6
CI052 D6
CI053 E6
CI054 D7
CI055 D7
CI056 D7
CI060 D6
CI061 D5
CI062 D5
CI063 D6
CI064 E5
CI065 E5
CI066 E5
CI070 F6
CI071 C5
CI072 B6
CI073 E5
CI074 F5
CI077 E6
CI078 E4
CI090 F7
CL001 Q5
CL002 K5
CL003 O6
CL004 Q6
CL005 R6
CL006 Q5
CL007 F2
CL008 R5
CL009 L6
CL010 P11
CL028 P11
CL029 Q10
CL030 Q8
CL031 Q8
CL032 R10
CL033 M10
CL034 M11
CL036 N10
CL037 P9
CL038 Q7
CL039 R7
CL041 K8
CL042 J8
CL043 K8
CL044 K9
CL045 H8
CL046 P6
CL047 M6
CL057 L7
CL061 M6
CL062 L7
CL063 M7
CL066 N6
CL067 P7
CL073 L6
CL084 P6
CL146 P6
ICL148 Q6
CL211 L8
CP017 Q1
CP018 N1
CP019 Q2
CP020 Q1
CP021 P0
CP022 N1
CP023 P0
CP040 M0
CP041 N0
CP042 N0
CP050 M1
CP051 M2
CP052 L2
CP053 L2
CP054 L1
CP055 L1
CP056 L1
CP060 K1
CP061 J1
CP062 J0
CP063 J0
CP064 K0
CP065 K0
CP066 K0
CP067 L0
CP068 K0
CP069 L0
CP100 P3
CP102 M3
CP110 P5
CP111 Q4
CP112 Q4
CP120 L5
CP121 K4
CP126 L5
ICP130 P4
CP131 P5
CP135 N4
CP137 M4
CP138 L5
CP140 J3
CP141 H0
CP142 H1
CP143 H3
CP144 H1
CP170 K6
CP171 H4
CP176 H4
CP179 H4
CP213 N4
CP216 K6
CP222 K6
CP168 G1
CP231 J6
CP232 J6
CP004 C2
CX001 E9
CX002 F9
CX120 H10
CX130 J10
CX140 J10
CX150 G10
CX220 E10
CX250 E10
CX280 B8
CX282 D10
CX301 D10
CX350 E10
CX722 D11
CX723 D11
CX724 C11
CX726 D11
CX900 E10
CX901 F9
CX902 D9
CX910 H10
CX920 D10
CX950 F9
CX965 E9

CP121 G6
CP126 H5
CV052 H5
CV062 H5
CV063 H5
CV072 H5
CV073 H5
CV082 H5
CP130 P1
CP135 N4
CP137 M4
CP138 L5
CP140 J3
CP141 H0
CP142 H1
CP143 H3
CP144 H1
CP170 K6
CP171 H4
CP176 H4
CP179 H4
CP213 J6
CP216 K6
CP222 K6
CP168 G1
CP231 J6
CP232 J6
CP176 K5
CP180 L1
CP186 K1
CP190 M4
CP195 N4
CP196 N5
CP197 P5
CP198 N5
CP199 P5
CP200 N5
CP201 P5
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CP215 P5
CP21

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLA

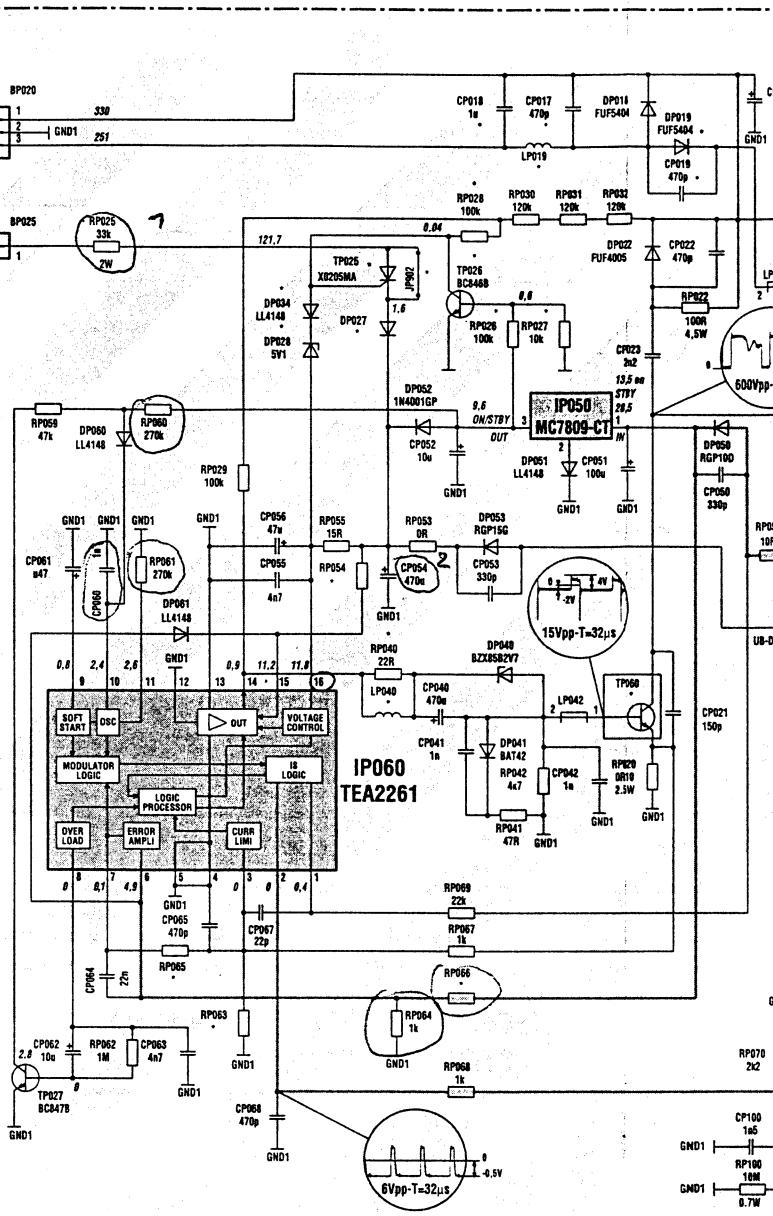


DESIGNATION POWER

PP.19100.00, PP.19101.00, PP.19110.00, PP.19111.00

*	PP.19111.00 10536990	PP.19101.00 10393830	PP.19110.00 10536980	PP.19100.00 10353750
CP017/018/019	-	X	-	X
CP020	150u	150u	150u	150u
CP112	3n3	3n3	3n3	3n3
CP126	X	X	-	-
CP146	X	X	X	X
DP019	-	X	-	X
DP027	1N4148	1N4148	1N4148	1N4148
DP028/034	X	X	X	X
DP108/109	BYW029-150	BYW029-150	RGP30D	RGP30D
DP110	MUR1100E	RGP50M	RGP50M	RGP50M
DP113	RGP10M	MUR1100E	MUR1100E	MUR1100E
DP126	X	X	-	-
DP140	BYV63-50	BYV63-150	MR822	MR822
JP902	-	-	-	-
JP910/911	-	-	-	-
JP913	-	-	X	X
JP914	139V	139V	139V	139V
JP915	136V	136V	136V	136V
JP916	130V	130V	127V	130V
JP917	142V	142V	142V	142V
LPD19	-	105u	-	105u
LP020	10397920	10397920	10397920	10459670
LP021	-	X	-	X
LPD40	2u2	2u2	2u2	2u2
RP026/028	X	X	X	X
RP027	X	X	X	X
RP040	1/2W	1/2W	1/2W	1/2W
RP054	6R8	6R8	6R8	6R8
RP063	-	47k	-	47k
RP065	11k	12k1	11k	12k1
RP066	4k22	3k57	4k22	3k57
RP126/128	X	X	-	-
RP127/129	X	X	-	-
RP130	X	X	-	-
RP138/139	X	X	X	X
RP146	X	X	X	X
RP157	130k	130k	130k	130k
RP177	12k	12k	12k	12k
TP025/026	X	X	X	X
TP060	BUL810TH	BUL810TH	BUL810TH	BUL810TH
TP129	X	X	-	X
TP146	X	X	X	X
TP162	-	-	X	X

X Inserted
- Not inserted



*	different comp.	BP06	BP07	BP08	CP13	CP15	DP08	DP16	JP01	JP08	LP15	RP05	RP08	RP09	SP05	TP08
MIS.19101	100Hz+relay	X	X	X	150u	X	X	X	-	-	1.5mH	18R	X	X	X	X
MIS.19002	50Hz	-	-	-	100u	X	-	X	-	X	3mH	25R	-	-	-	-
MIS.19003	50Hz+relay	X	X	X	100u	X	X	X	-	-	3mH	18R	X	X	X	X
MIS.19004	50Hz/45W Pict.Pow.	-	-	-	-	-	-	X	-	X	3mH	25R	-	-	-	-
MIS.19012	50Hz	-	-	-	100u	-	-	-	-	X	X	-	25R	-	-	-
MIS.19111	100Hz+relay	X	X	X	150u	-	X	-	X	-	-	18R	X	X	X	X

X Inserted
- Not inserted

Part of board connected to mains supply.

Partie du chassis reliée au secteur.

Primärseite des Netzteils.

Parte dello chassis collegata alla rete.

Parte del chassis conectada a la red.



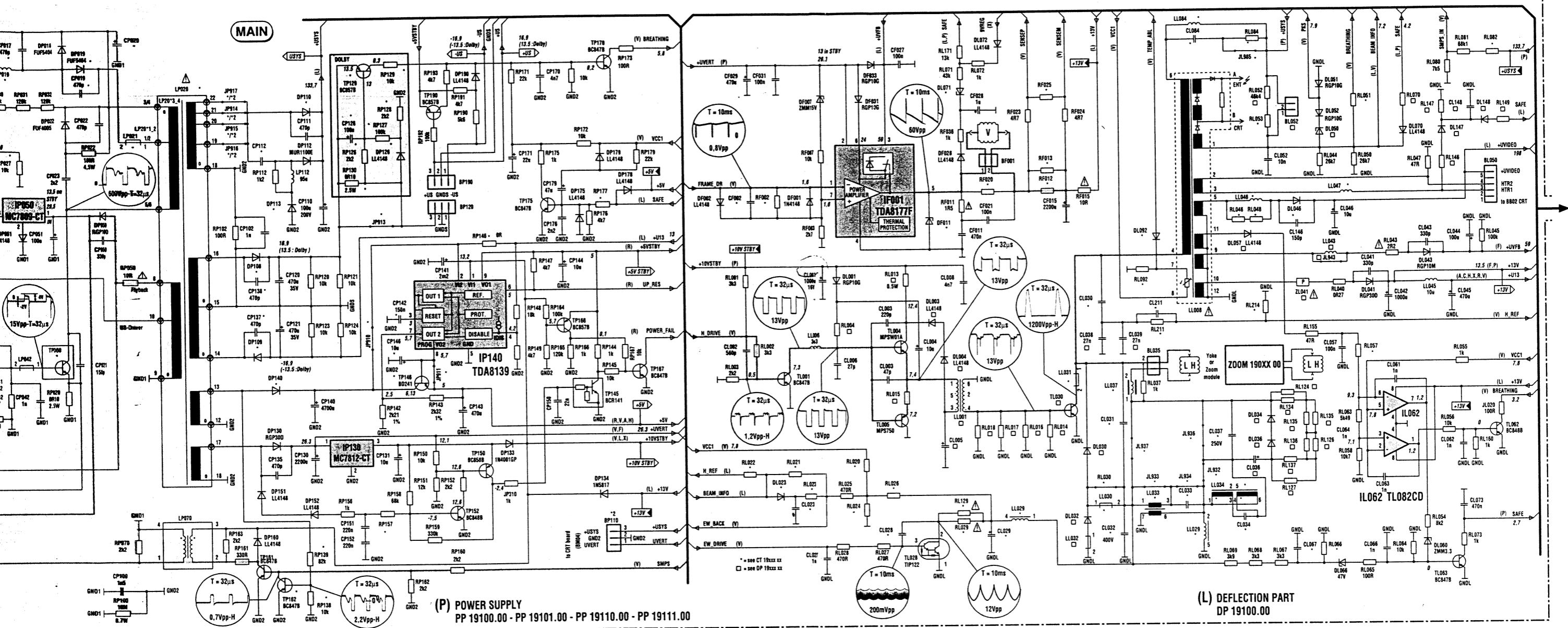
Use isolating mains transformer

Utilise un transformateur isolateur du secteur

Einen Trenntrafo verwenden

Utilizar un transformador aislador de red

Utilizzare un trasformatore per isolarvi dalla rete



Note :
Power Supply primary circuit measurements.
- Use only (GND1) connection point.

Attention :
Mesure dans le bloc alimentation
- Utiliser la masse du bloc alimentation (GND1).

Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (GND1).

Attentione :
misura nell'alimentatore primario
- usare massa alimentazione primario (GND1).

Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (GND1).

! Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
durante la riparazione usare componenti originali
Pieza de seguridad
Utilice solo piezas originales

Deflection - Basic Partlists

	100Hz	100Hz	100Hz	100Hz
DP 19100 00				
10 34 99 80				
BL052	—			
CL005	470u/16V			
CL036	2u/250V			
CL038	—			
CL039	54n			
CL148	220n			
DL003/04	—			
DL030	DTV32F-1500			
DL032	BYT08-400			
DL034/036	BYT01-200			
DL050	BZ485C22			
DL057	—			
DL147/148	LL4148			
JL943	—			
LL001	10 48 87 60			
LL030	—			
LL032	10 25 84 40			
LL043	22u			
RF015	PTC-15R			
RL004	1k			
RL013	4R7			
RL014	40R2			
RL015	1R			
RL016/17	40R2			
RL018	40R2			
RL070	15k			
RL071	43k			
RL124/127	7k5			
RL145/137	10R			
RL147	4k7			
RL149	1k			
TL030	ON4977			
ZL041	MP160			

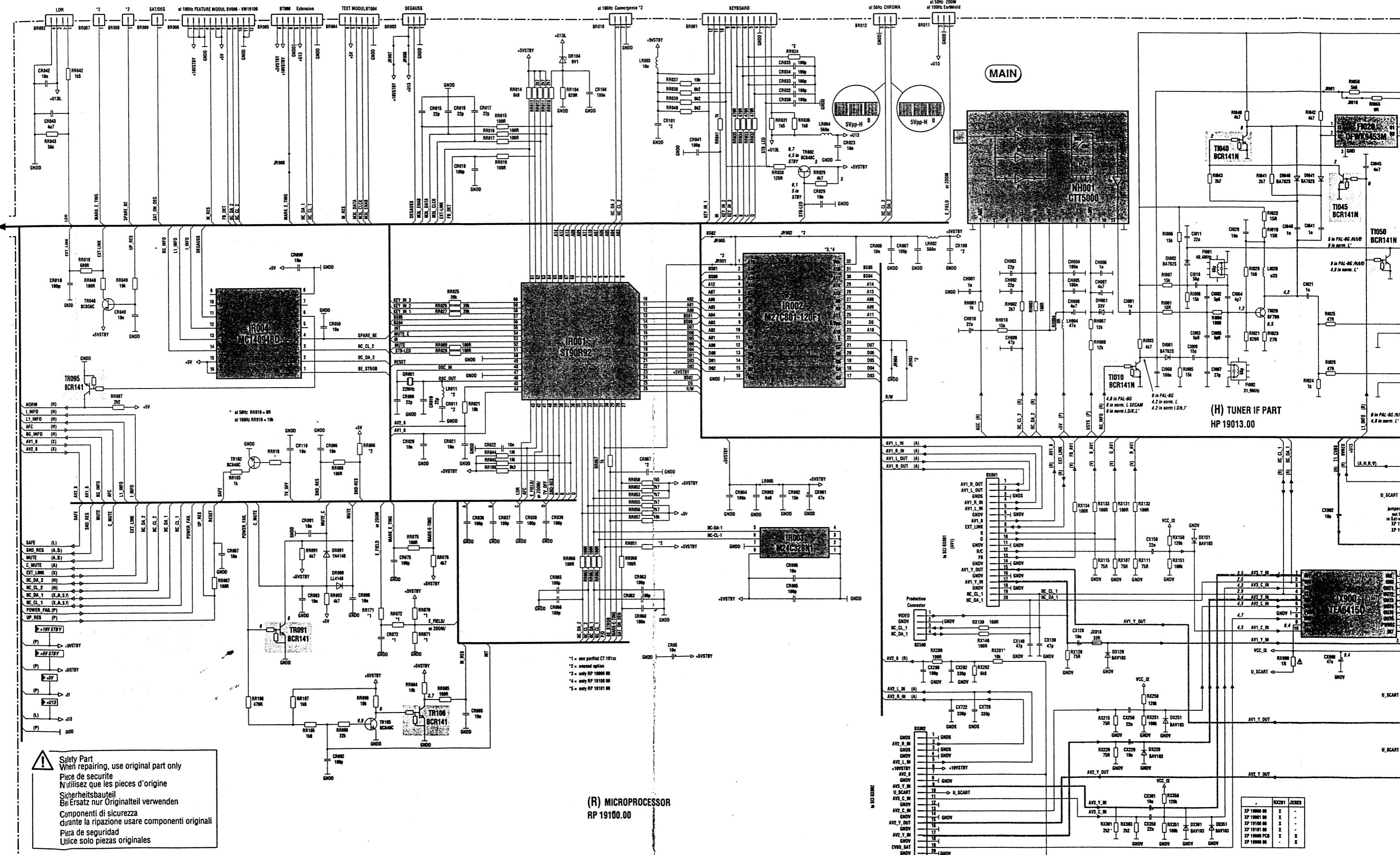
Deflection - Picture Tube related Partlists

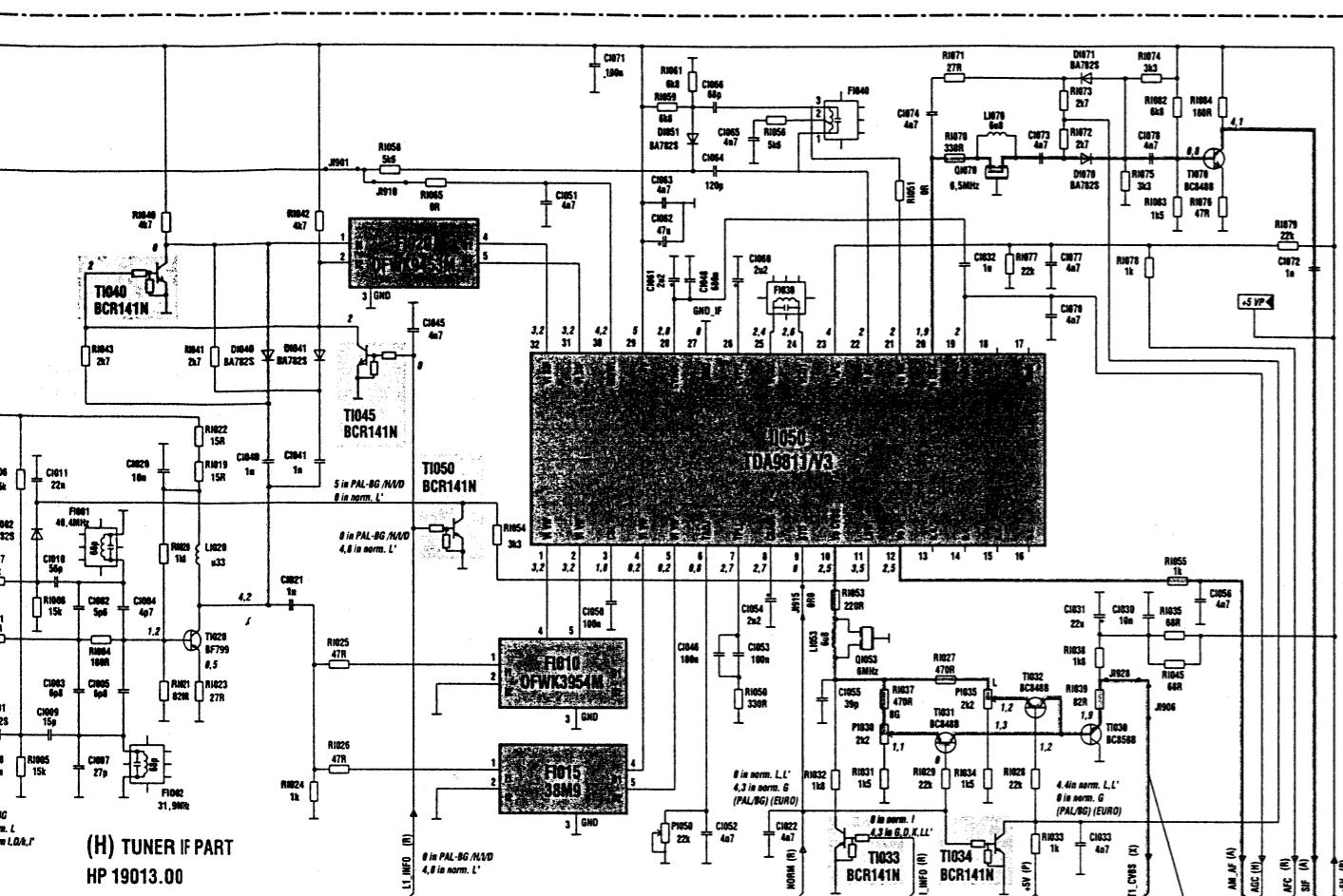
*	CT 19101 34	CT 19105 37	CT 19152 37	CT 19111 34	CT 19112 34	CT 19151 34
	10 36 28 80	10 35 15 30	10 52 06 10	10 44 48 10	10 47 54 60	10 52 06 00
	100Hz	100Hz	100Hz-MCU	100Hz	100Hz	100Hz-MCU
	25-28' MP 4/3	29'SF 4/3	29'SF 4/3	28'SF 16/9	32'SF 16/9	32'SF 16/9
CF002	680p	680p	680p	2n2	2n2	2n2
CL023	—	—	—	—	—	—
CL028	56n	1n	1n	56n	56n	56n
CL029	470n/63V	3n3/63V	3n3/63V	470n/63V	470n/63V	470n/63V
CL030	1n9/2KV	1n9/2KV	1n9/2KV	2n7/2KV	2n7/2KV	2n7/2KV
CL031	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV
CL032	33n/400V	24n/400V	24n/400V	33n/400V	33n/400V	33n/400V
CL033	560n/250V	—	—	680n/250V	680n/250V	680n/250V
CL034	12n/400V	12n/400V	12n/400V	12n/400V	12n/400V	12n/400V
CL037	680n/250V	410n/400V	410n/400V	560n/250V	560n/250V	560n/250V
CL067	100n/100V	—	—	100n/100V	100n/100V	100n/100V
CL084	3n9/400V	3n9/400V	3n9/400V	3n9/400V	3n9/400V	3n9/400V
CL211	470p	470p	470p	470p	470p	470p
DF011	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10
DL023	—	—	—	—	—	—
DL045	MUR160	MUR160	MUR160	MUR160	MUR160	MUR160
DL071	BZ485C22	BZ485C22	BZ485C22	BZ485C22	BZ485C22	BZ485C22
JL041	1N4148	1N4148	1N4148	1N4148	1N4148	1N4148
JL932	—	—	—	—	—	—
JL933	—	—	—	—	—	—
JL934	—	—	—	—	—	—
JL935	—	—	—	—	—	—
JL936	—	—	—	—	—	—
JL937	—	—	—	—	—	—
JL938	—	—	—	—	—	—
JL939	—	—	—	—	—	—
JL940	—	—	—	—	—	—
LL008	10 46 03 60	10 46 80 70	10 51 04 70	10 46 81 60	10 46 81 60	10 52 03 30
LL029	10 34 76 50	10 15 42 70	10 34 76 50	10 34 76 50	10 34 76 50	10 34 76 50
LL030	—	LFBEAD 90R	LFBEAD 90R	—	—	—
LL031	LFBEAD 90R	JUMPER	JUMPER	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R
LL033	—	—	—	10 34 76 60	10 34 76 60	10 34 76 60
LL034	10 34 76 60	—	—	10 34 76 60	10 34 76 60	10 34 76 60
LL034	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70
LL037	4u2	3u	3u	4u	4u	22u
LL046	47u	47u	22u	47u	47u	22u
LL047	13u5	13u5	13u5	13u5	13u5	13u5
LL084	29u5	29u5	29u5	29u5	29u5	29u5

Deflection - Picture Tube related Partlists

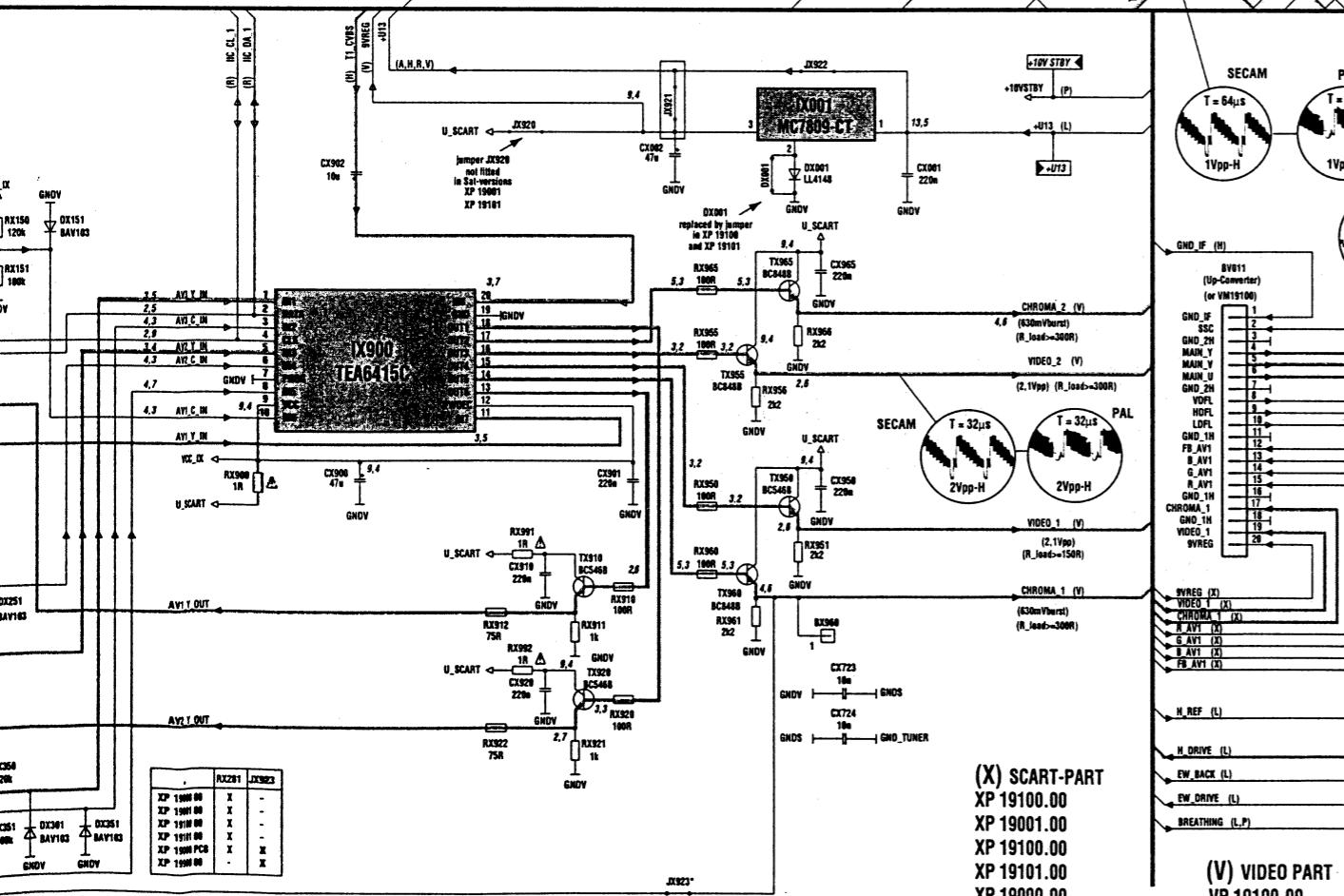
*	CT 19101 34	CT 19105 37	CT 19152 37	CT 19111 34	CT 19112 34	CT 19151 34
	10 36 28 80	10 35 15 30	10 52 06 10	10 44 48 10	10 47 54 60	10 52 06 00
	100Hz	100Hz	100Hz-MCU	100Hz	100Hz	100Hz-MCU
	25-28' MP 4/3	29'SF 4/3	29'SF 4/3	28'SF 16/9	32'SF 16/9	32'SF 16/9
RF002	10k	10k	10k	10k	10k	10k
RF012	1R	—	1R	1R	1R5	1R5
RF013	1R	—	1R	1R82	1R82	1R82
RF020	160R	—	270R	270R	—	—
RF025	35R	43R	43R	150R	150R	150R
RL020	4k64	7k15	7k15	4k64	4k64	4k64
RL021	—	—	—	—	—	—
RL023	—	—	—	—	—	—
RL024	2k67	4k02	4k02	2k67	2k67	2k67
RL026	36k5	61k9	61k9	36k5	36k5	36k5
RL029	2R2	2R2	2R2	—	—	—
RL045/48	3k3	3k3	3k3	3k3	3k3	3k3
RL051	270k	270k	270k	270k	270k	270k
RL053	6k34	8k66	8k66	6k34	6k34	6k34
RL057	26k1	56k2	47k5	47k5	56k2	—
RL066	—	2k2	2k2	—	—	—
RL082	59k	61k9	59k	59k	59k	59k
RL084	—	—	—	—	—	—
RL092	4k7	4k7	4k7	4k7	4k7	4k7
RL129	2R2	—	—	2R2	2R2	2R2
RL211	6k8	6k8	6k8	6k8	6k8	6k8
RL214	—	—	—	—	—	—
ZOOM MODULE	—</					

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA



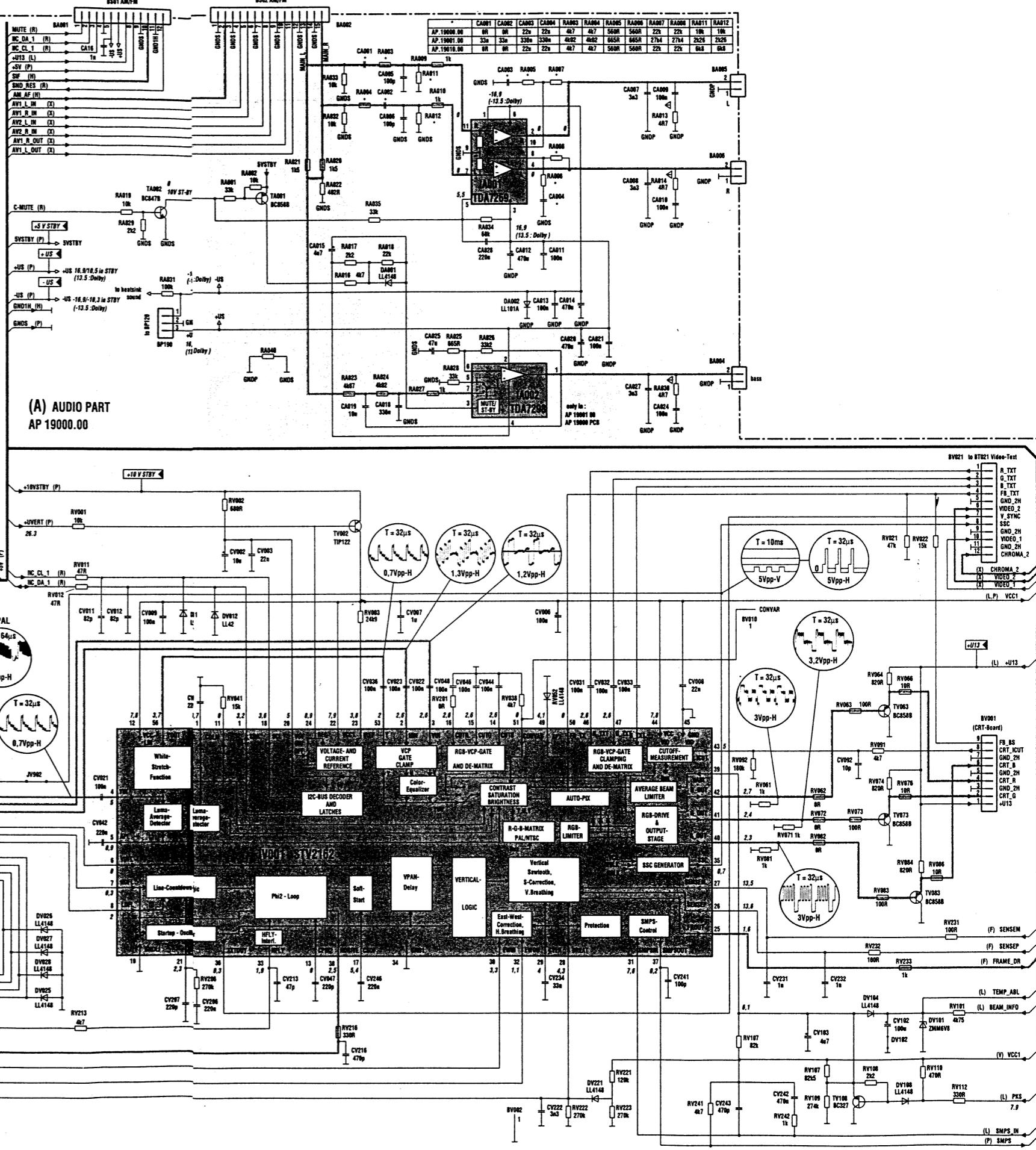


(H) TUNER IF PART
HP 19013.00



(X) SCART-PART
XP 19100.00
XP 19001.00
XP 19100.00
XP 19101.00
XP 19000.00

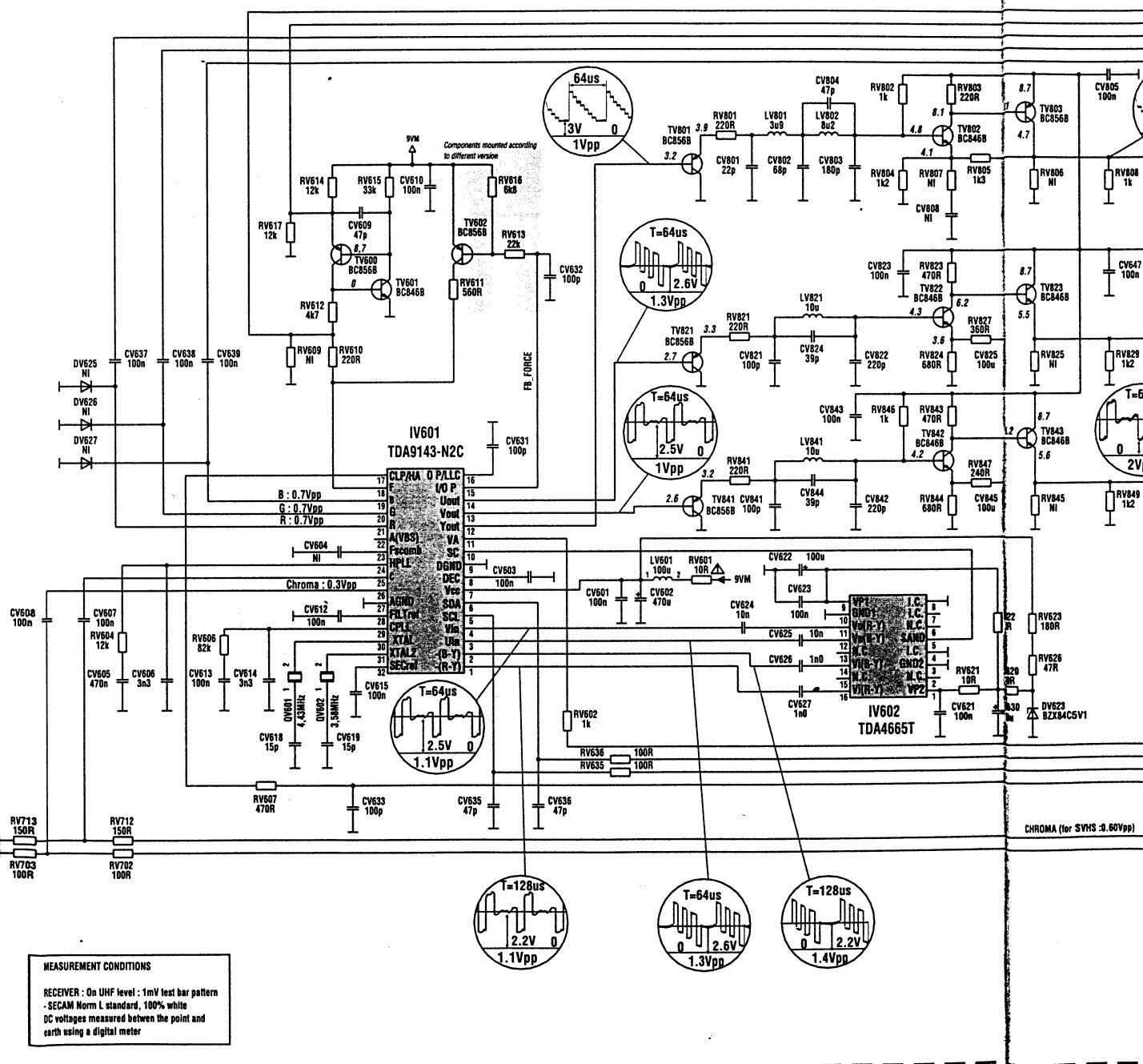
(V) VIDEO PART
VP 19100.00

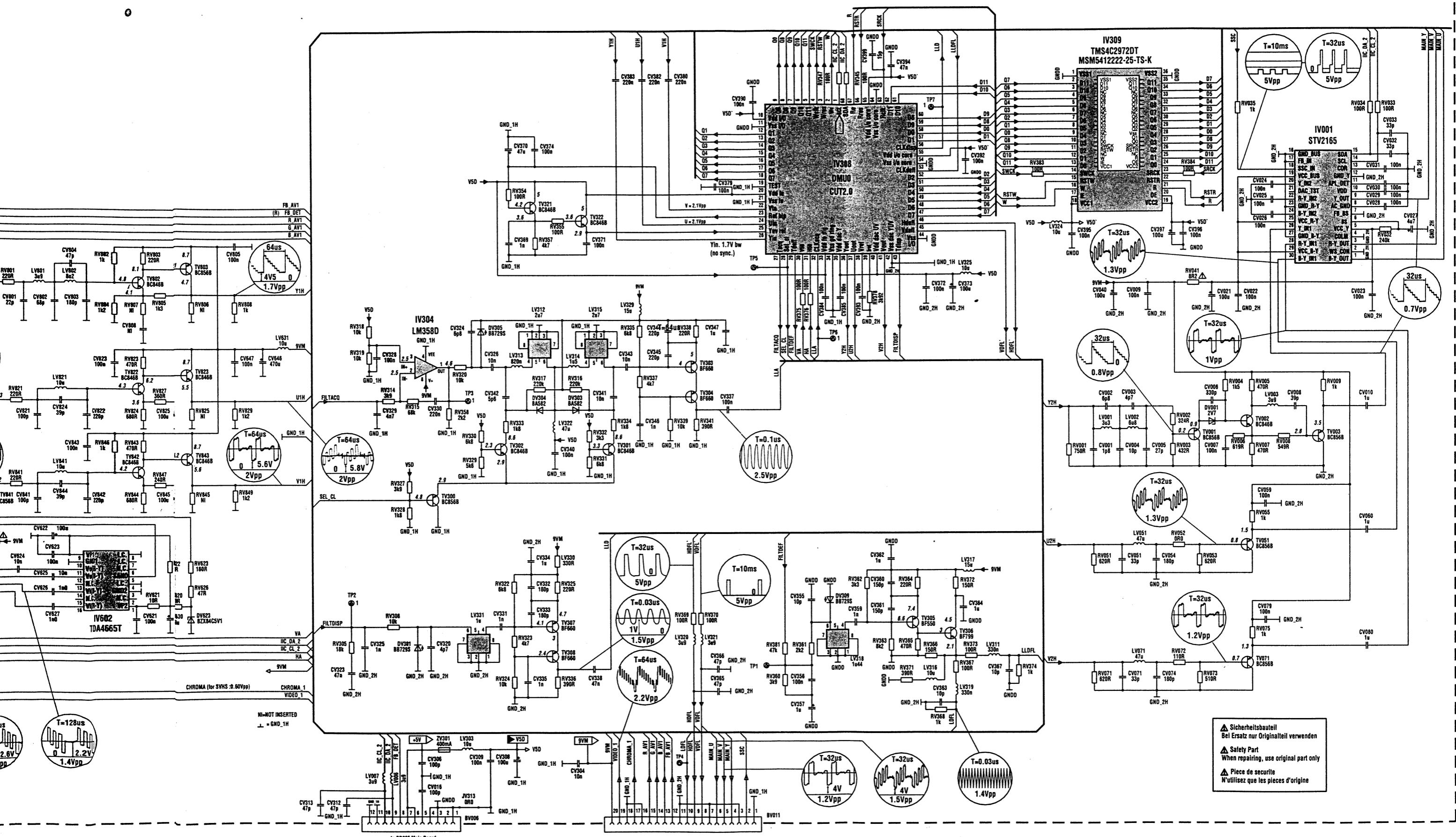


30

VM.19100.00

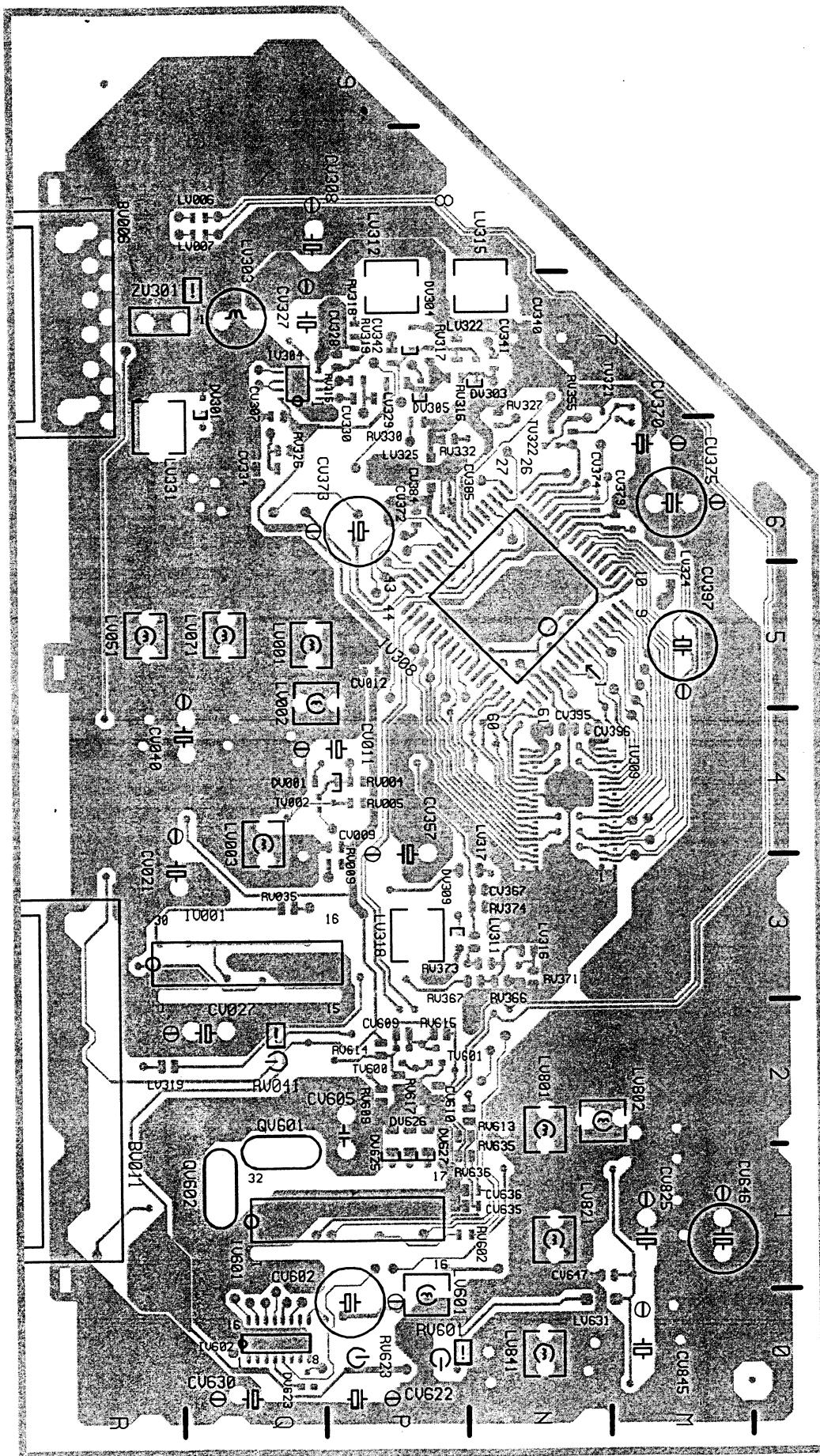
VM





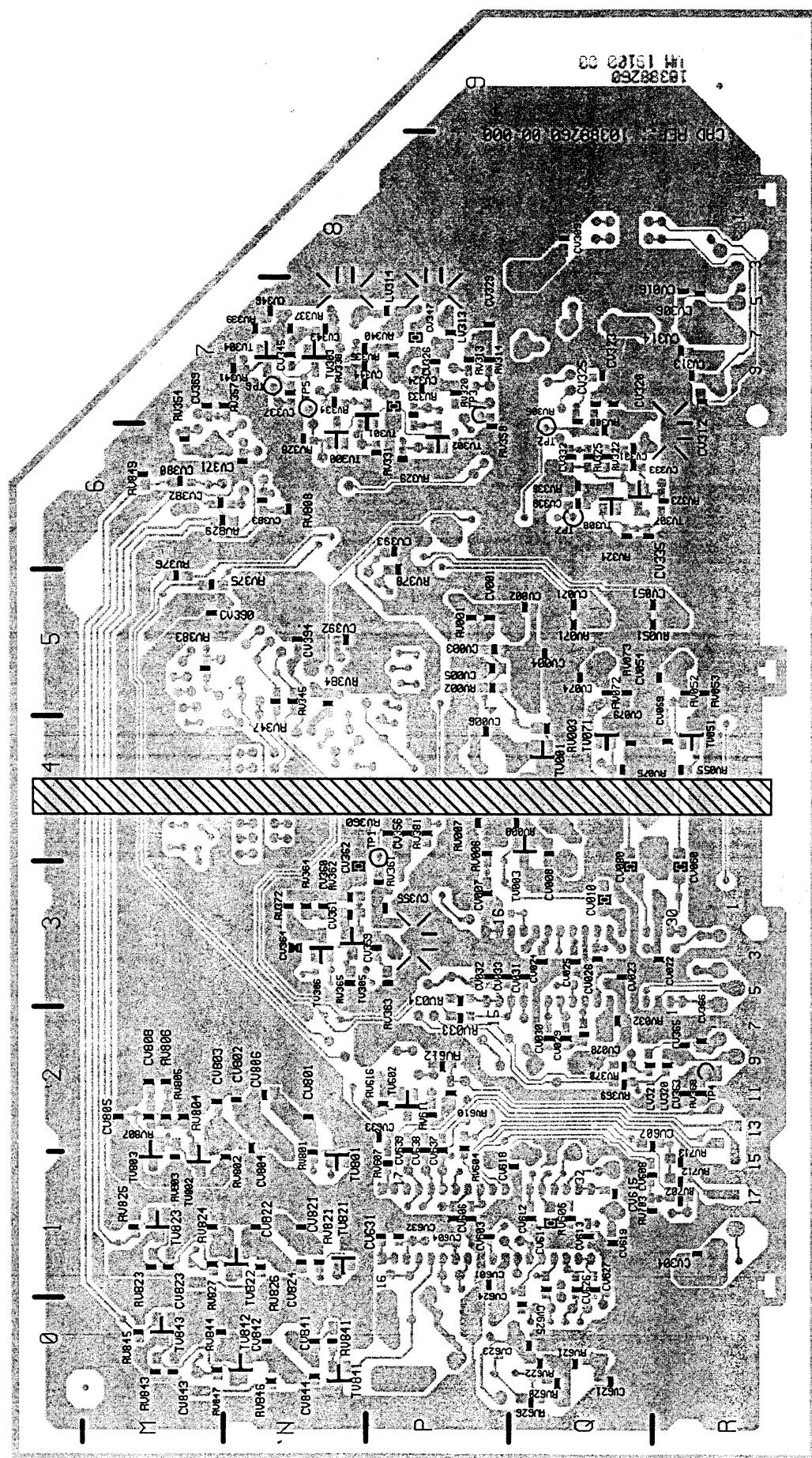
VM19100

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSSEITE
LATO COMPONENTI - LADO COMPONENTES



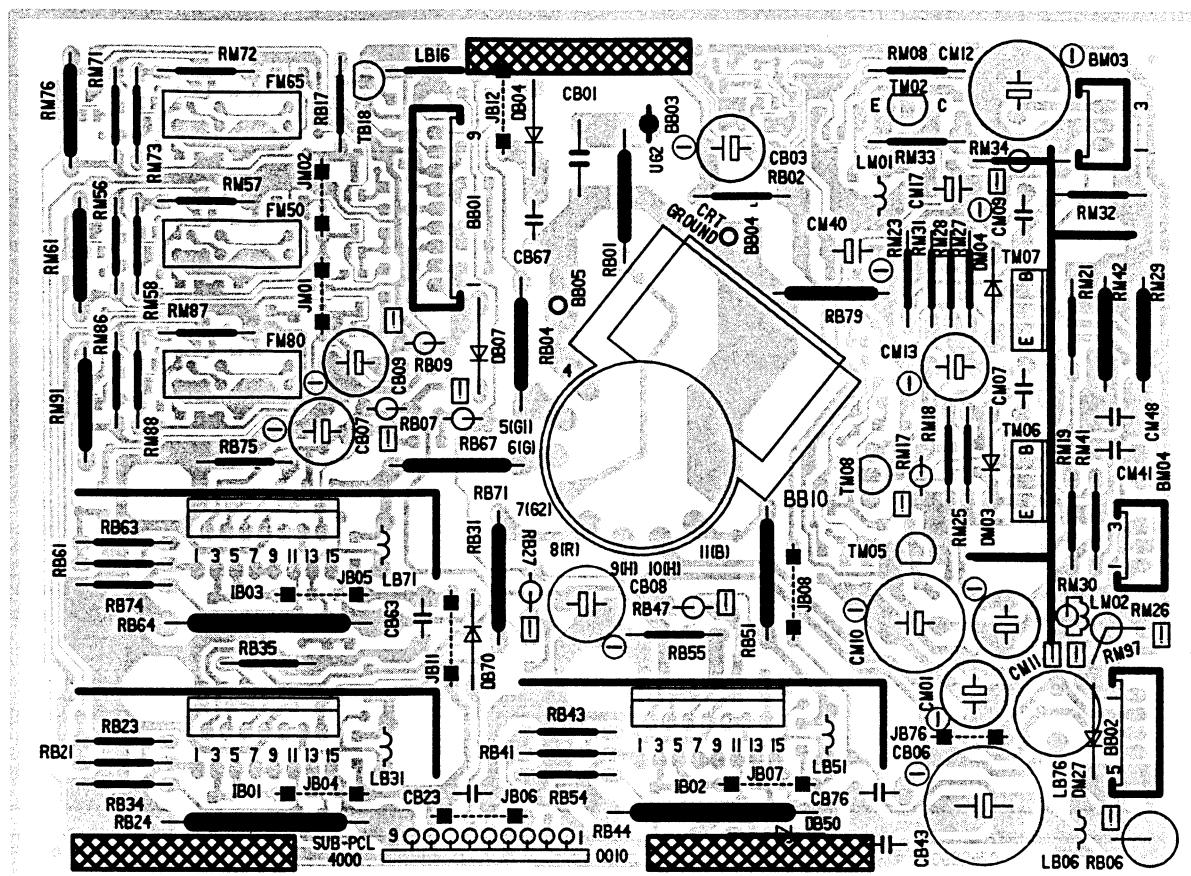
VM19100

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

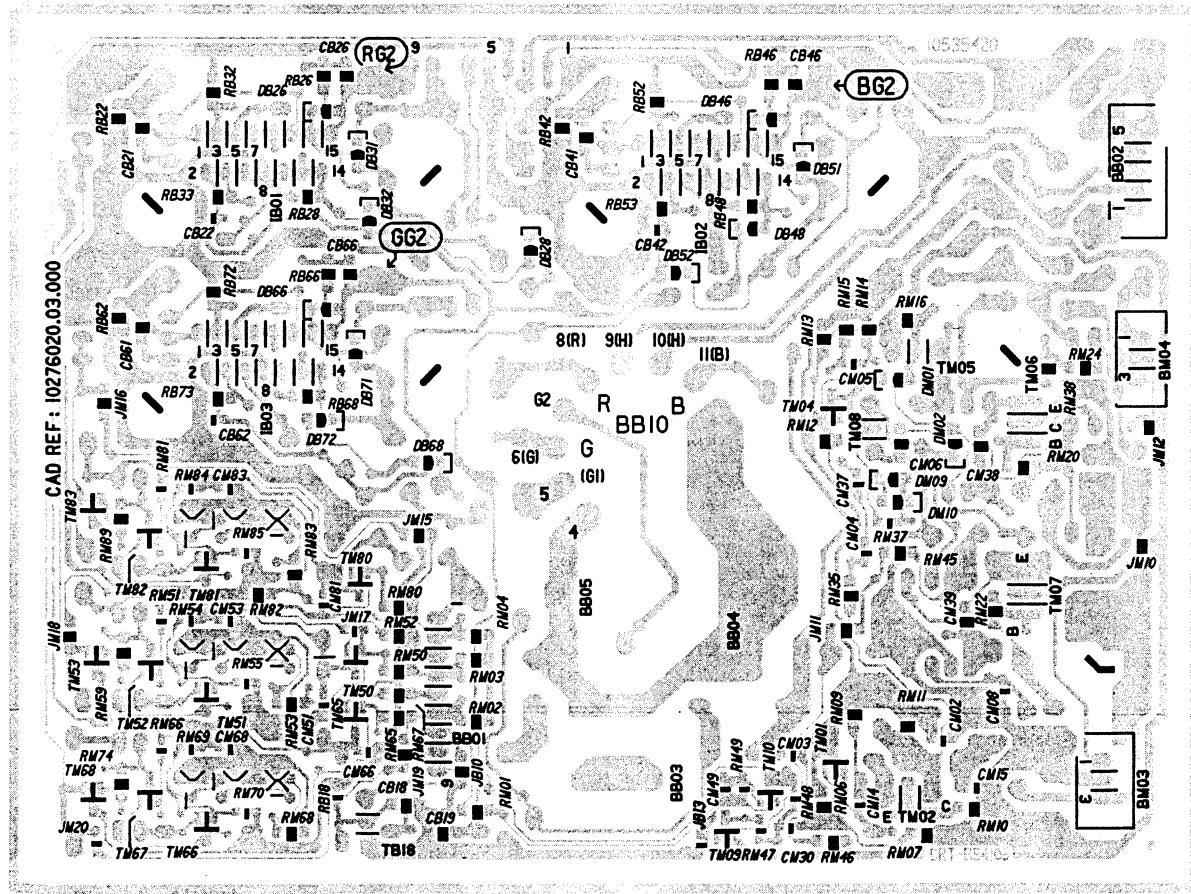


VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

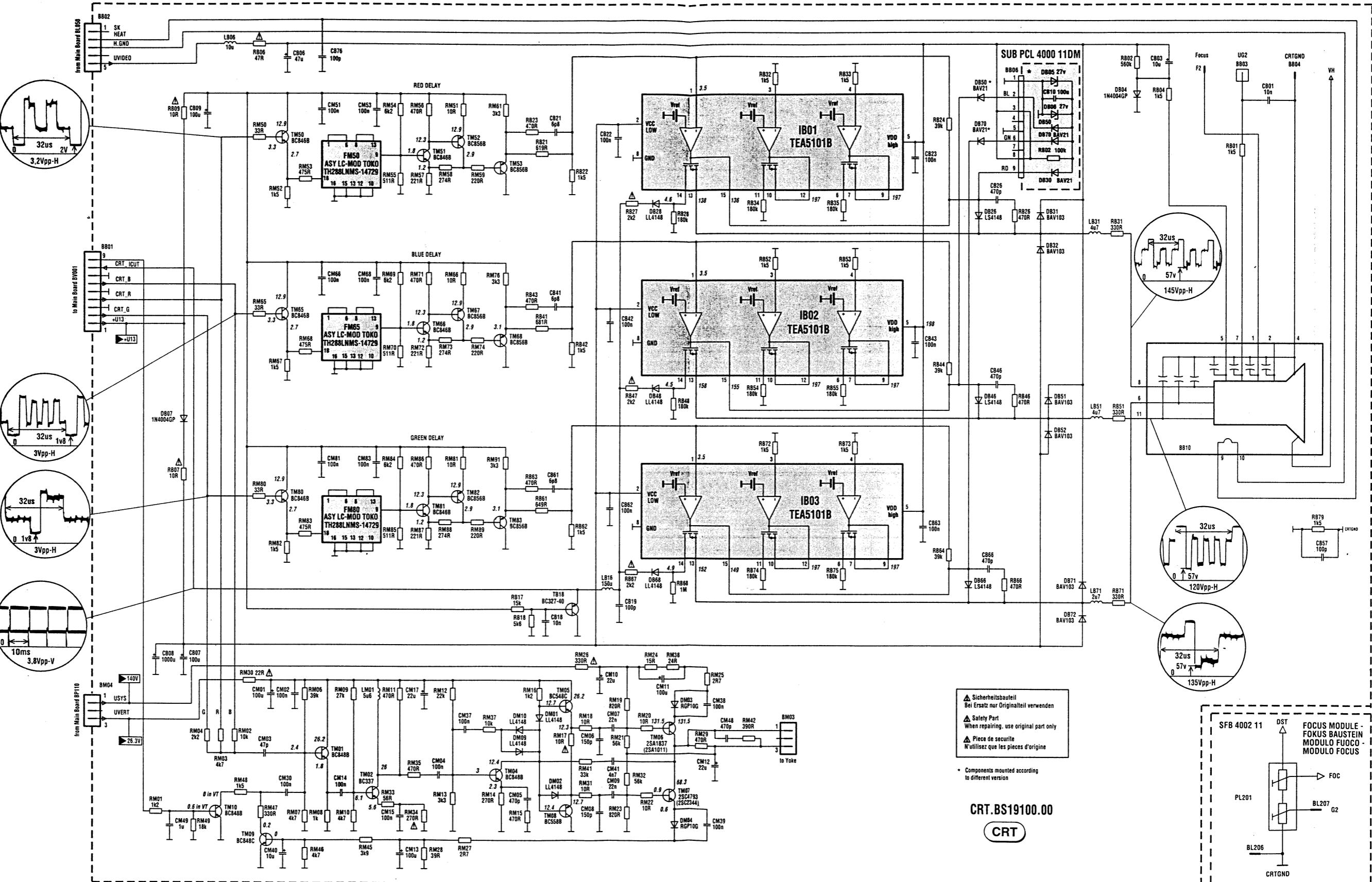
COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

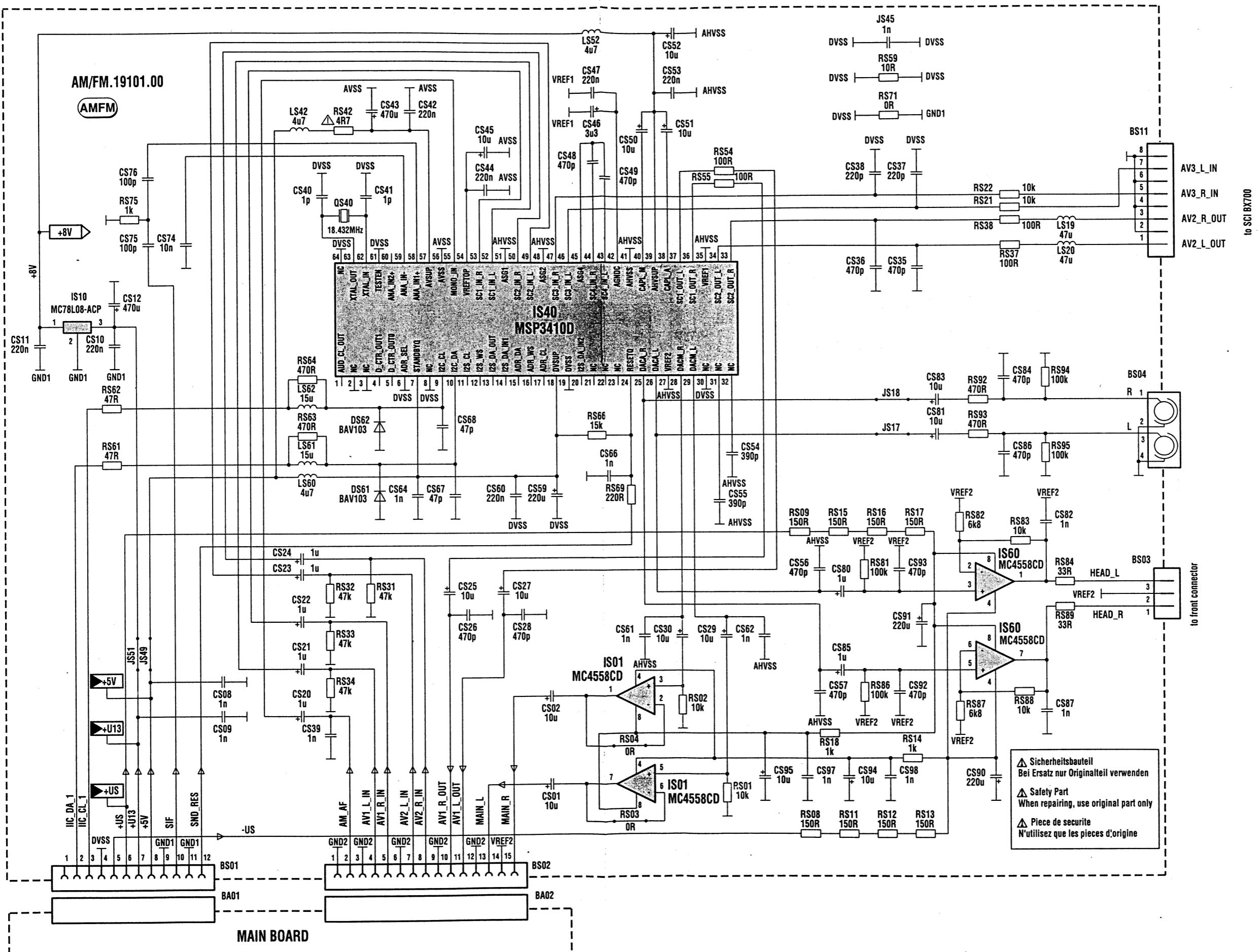


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



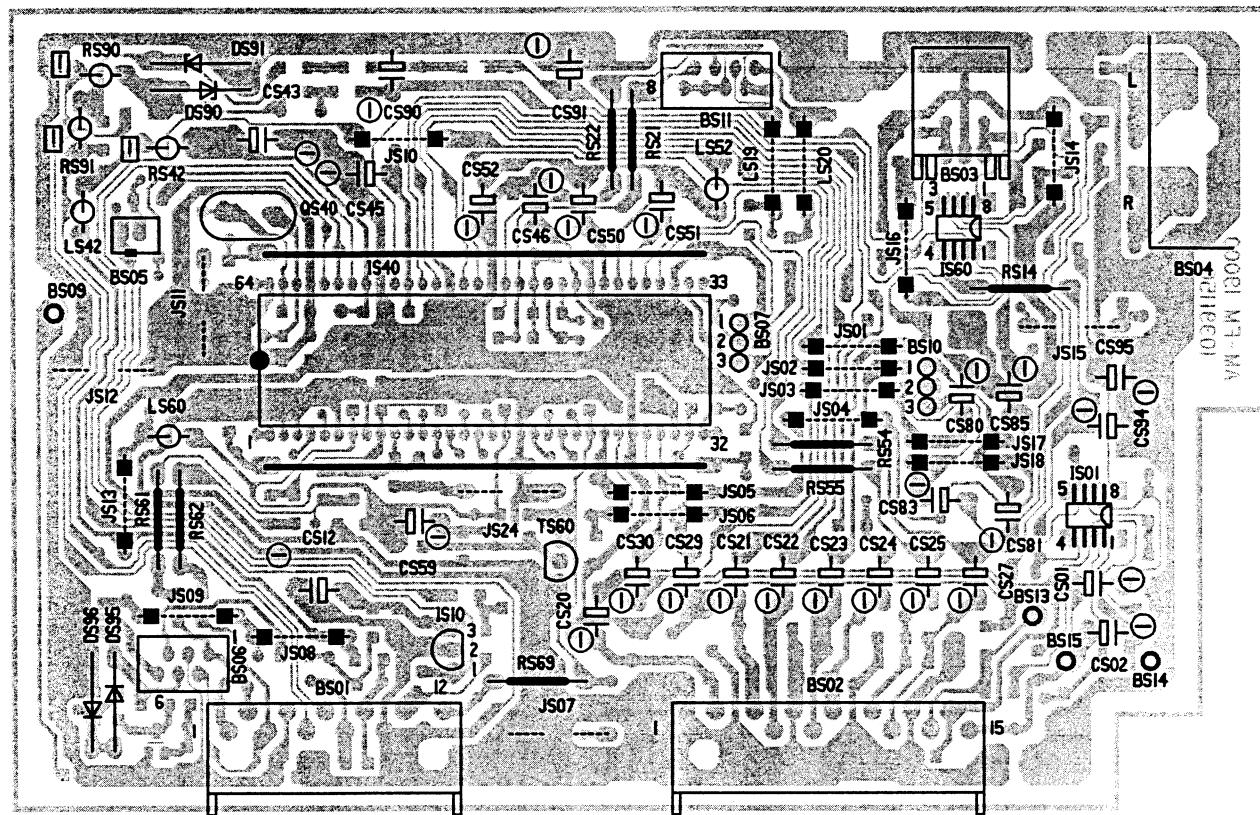
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO



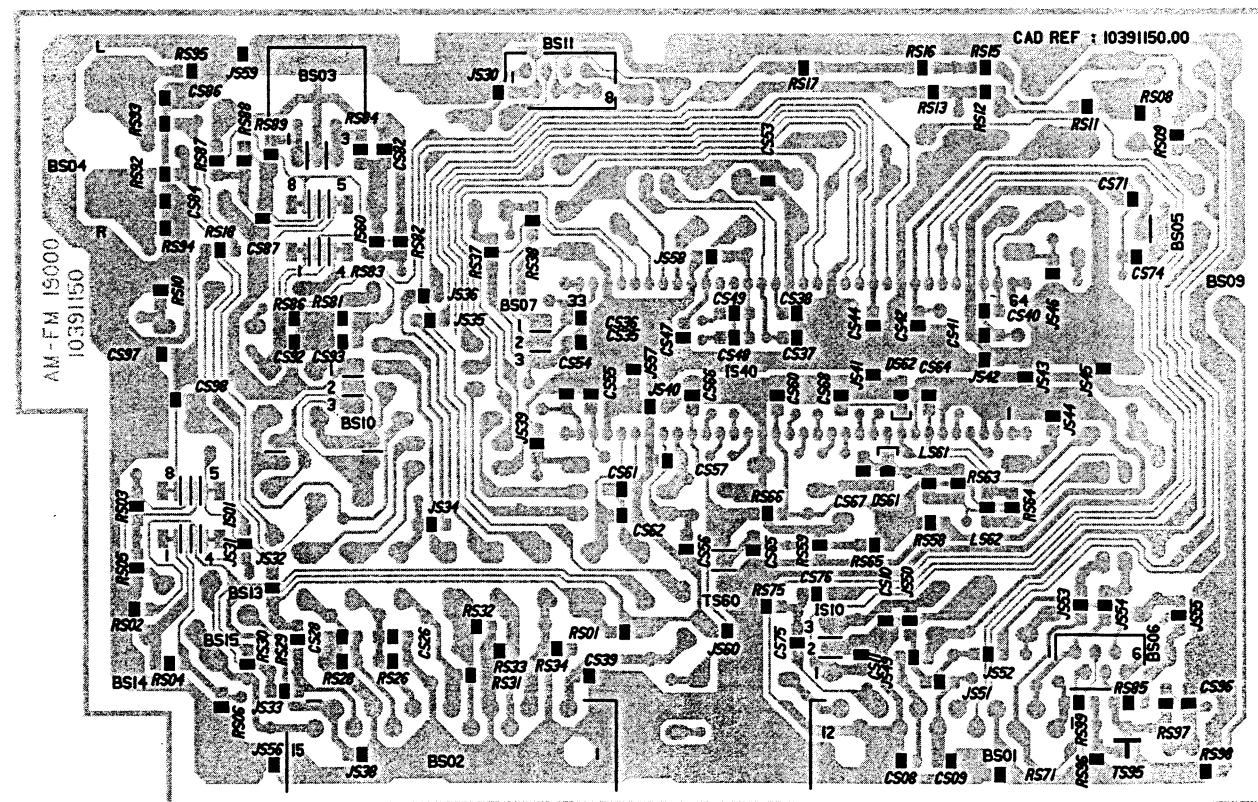


AM FM 19101

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE LATO COMPONENTI - LADO COMPONENTES

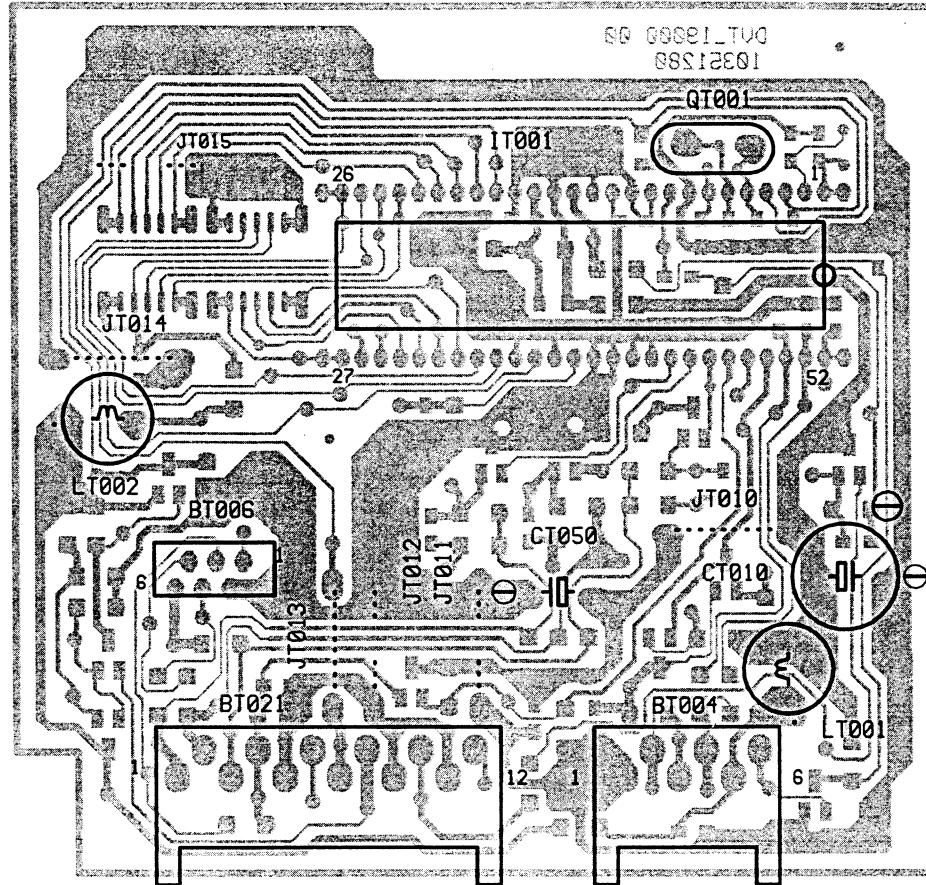


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

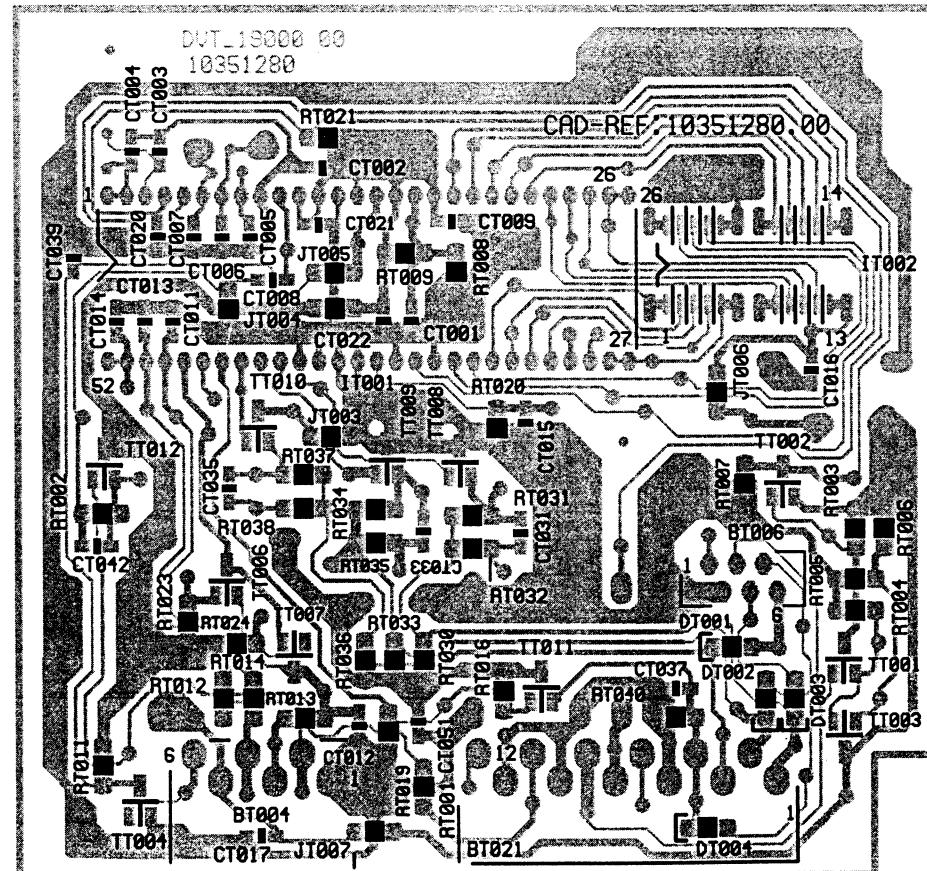


DVT 19000

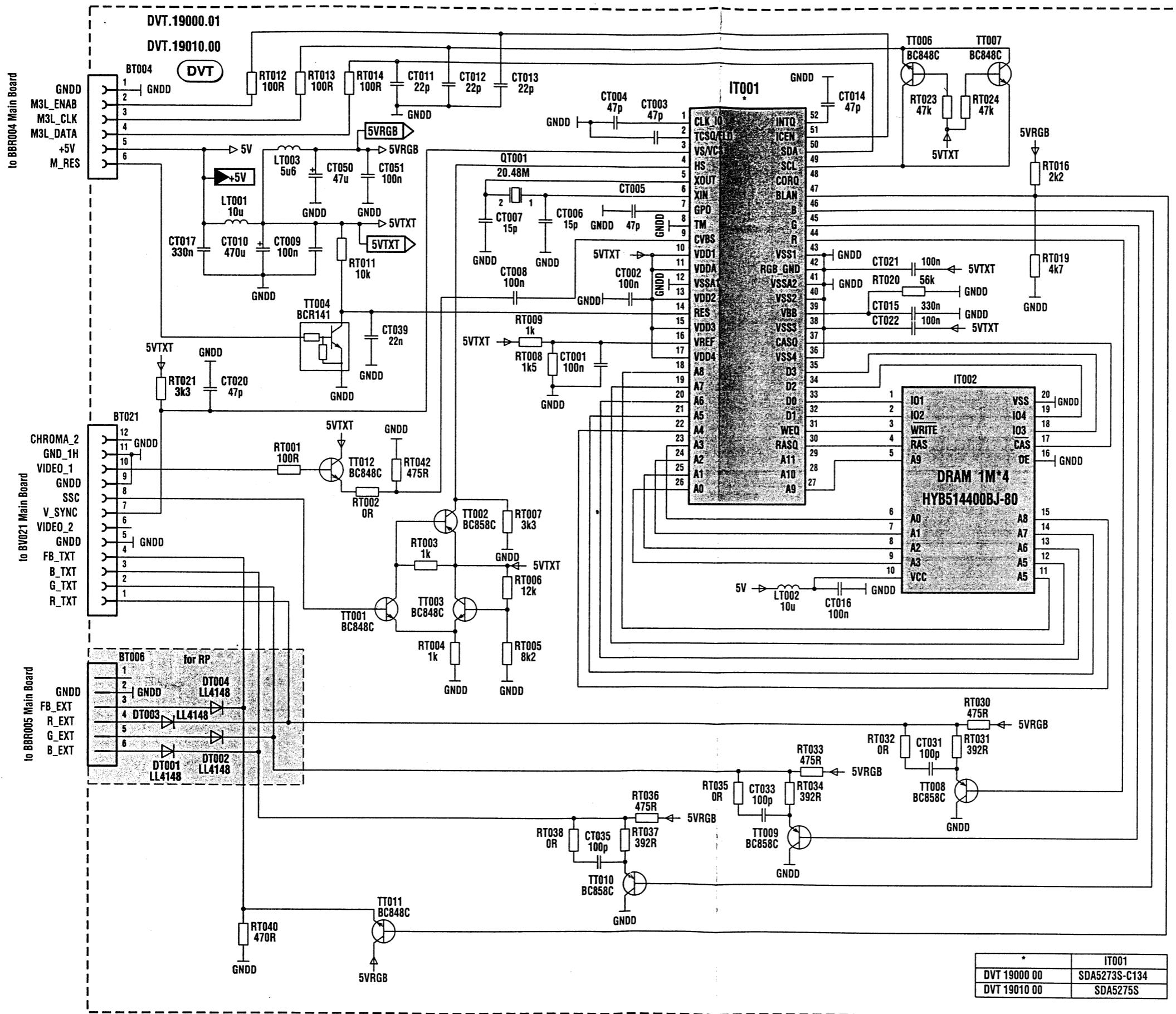
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES



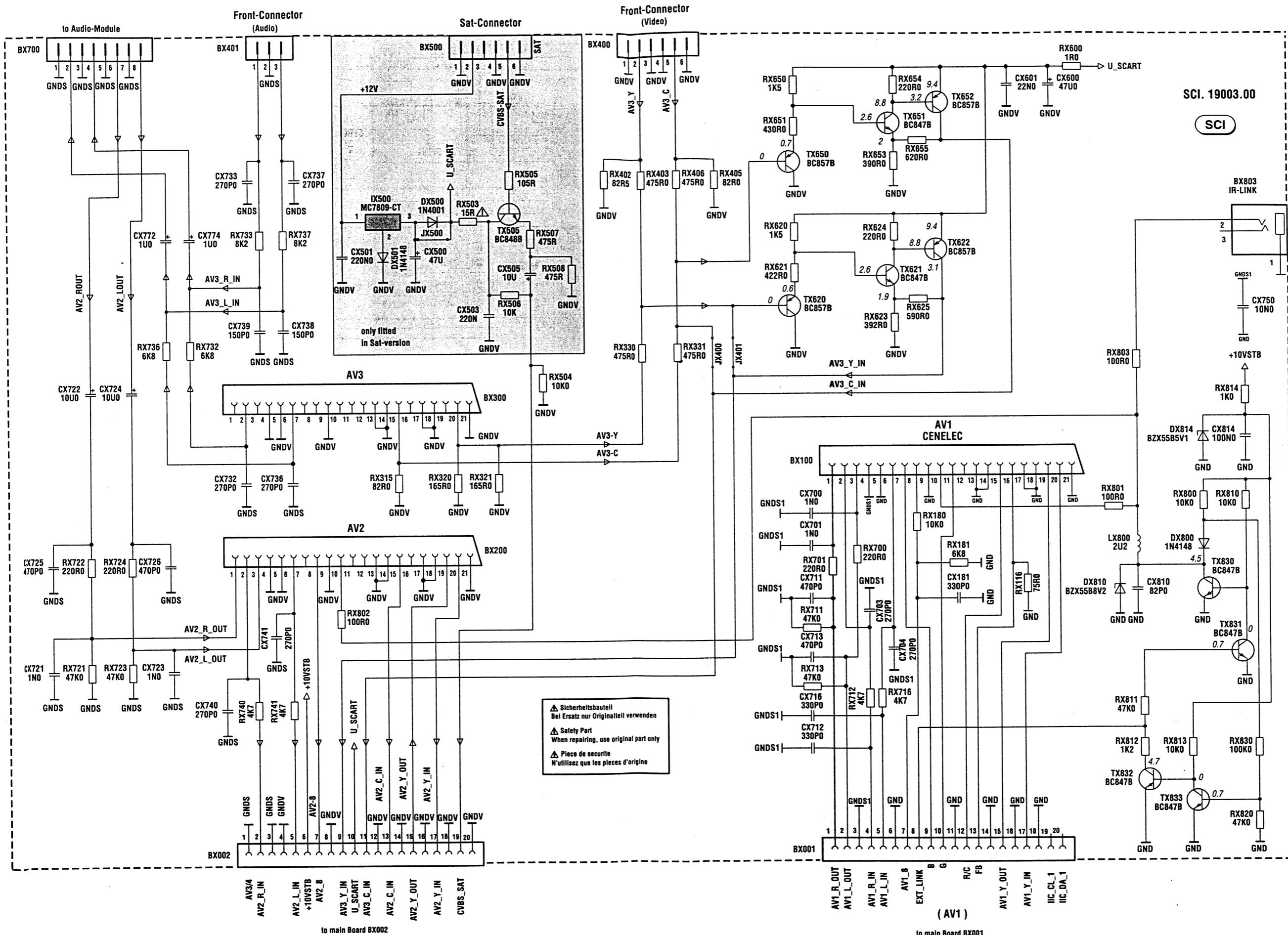
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



TELETEXT MODULE - MODULE TELETEXTE - VIDEOTEXT MODUL - MODULO TELEVÍDEO - MÓDULO TELETEXTO

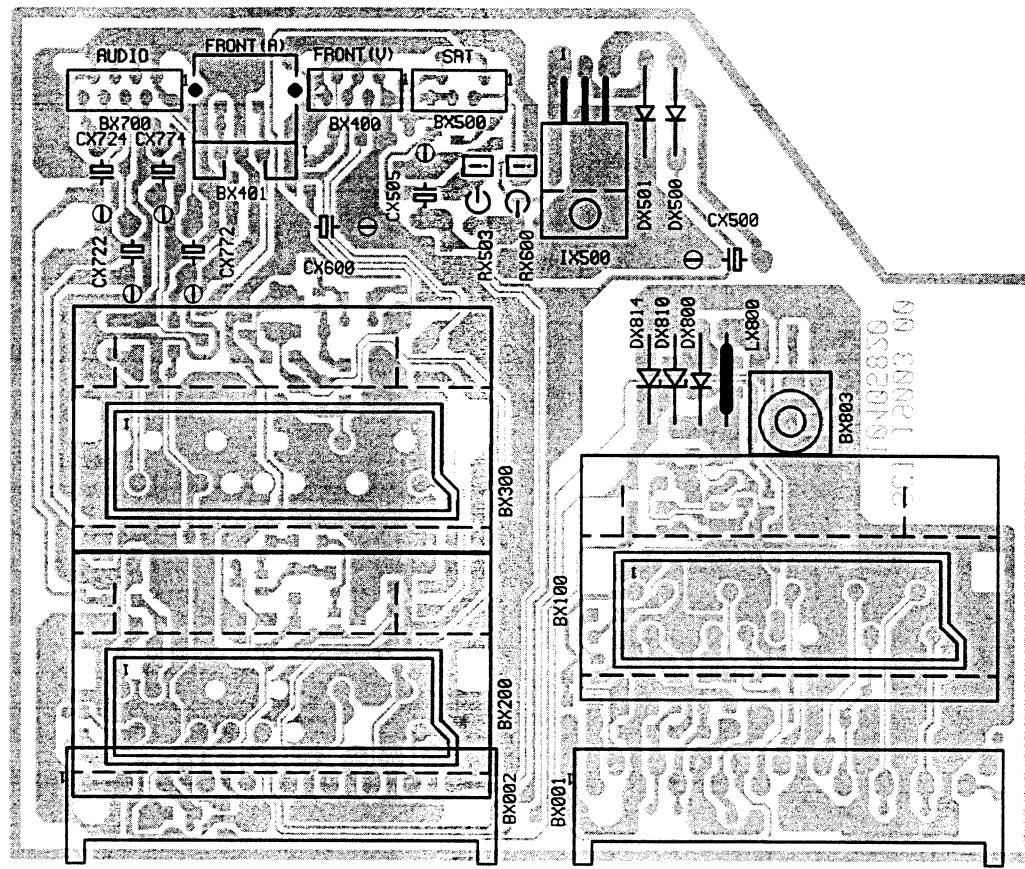


SCART INTERFACE MODULE - MODULE INTERFACE PER TELEVISIONE - SCART INTERFACE - MODULO PRESA PER TEL. - MODULO EUROTOMA

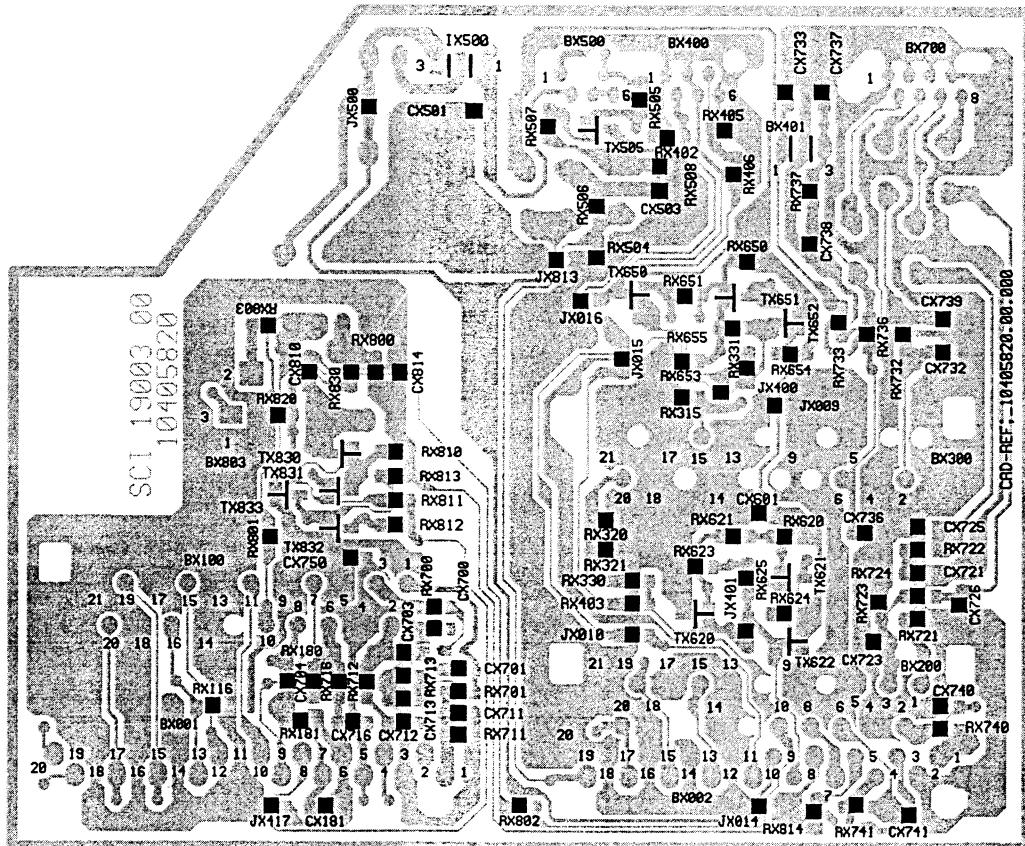


SCI 19003

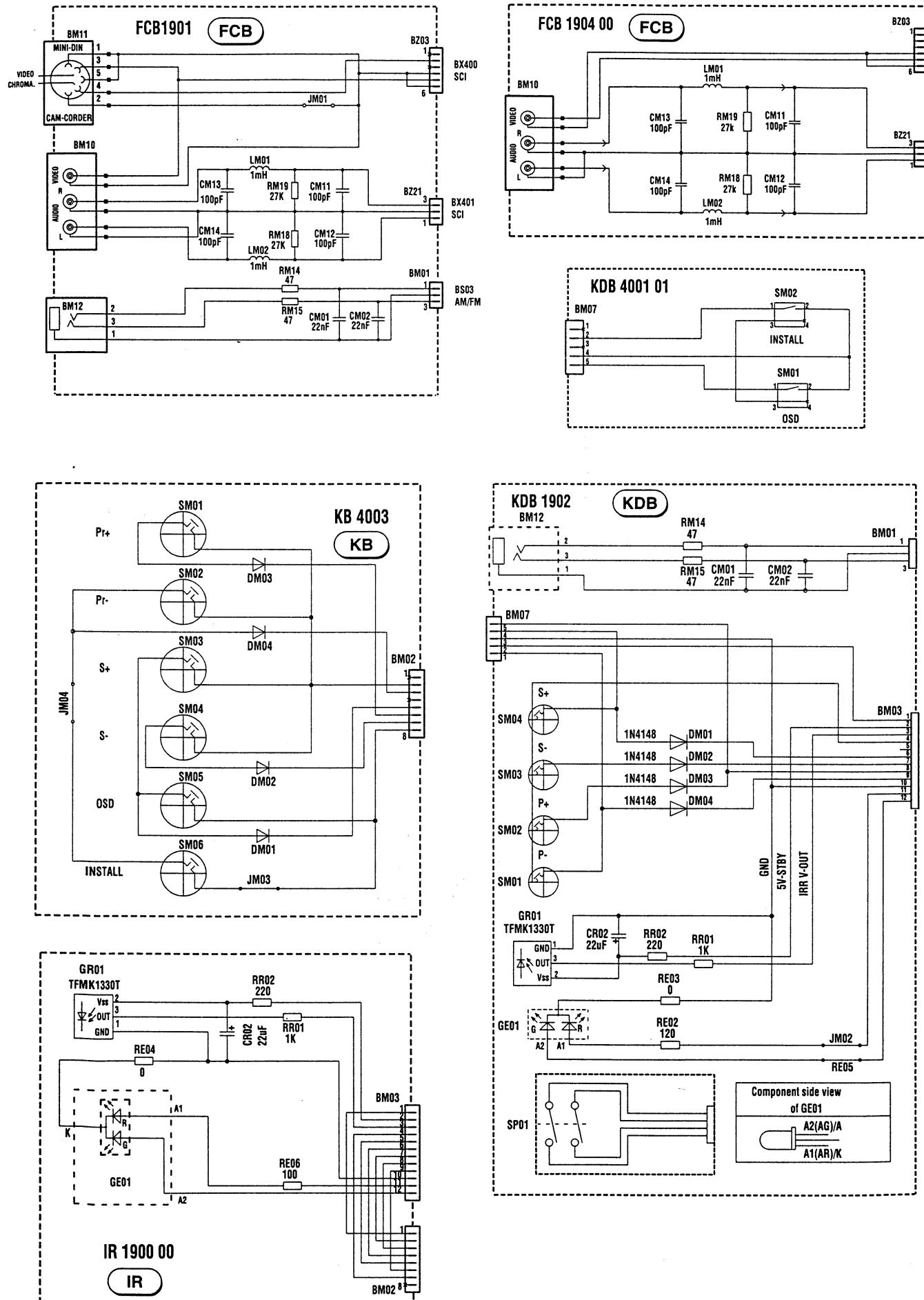
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

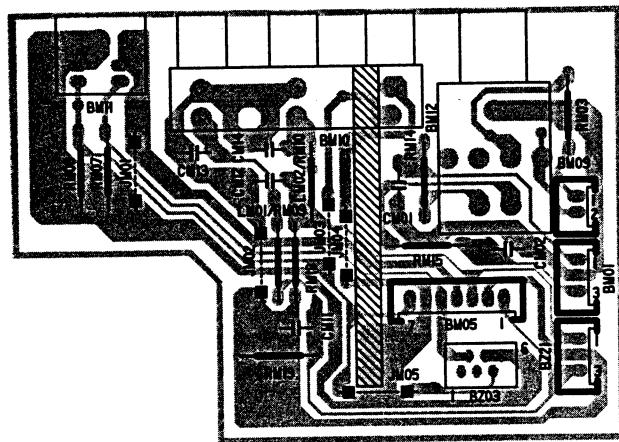


FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER
- FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE -
PLÁTINA MANDOS FRONTAL

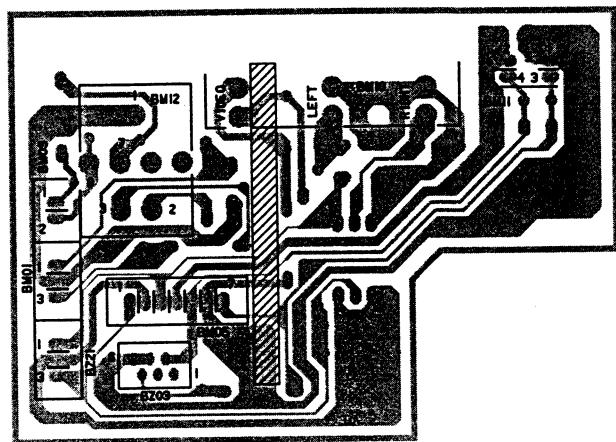


FCB 1901 - FCB 9069

**COMPONENT SIDE - COTE COMPOSANTS -
BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES**

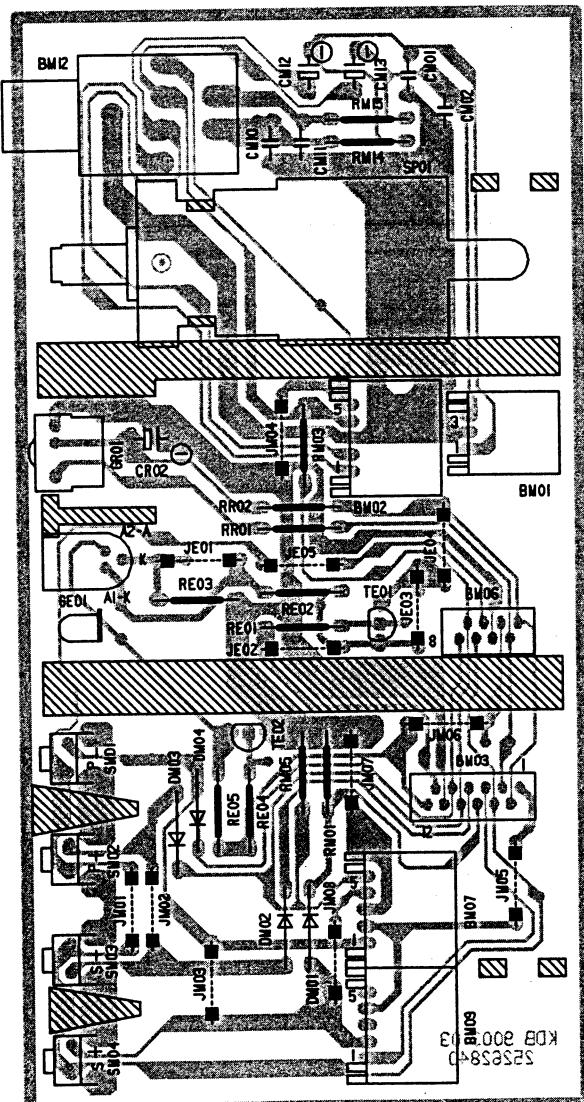


SOLDER SIDE - CÔTE SOUDURES -
LÖTSEITE - LATO SALDATURA -
LADO SOLDADURAS

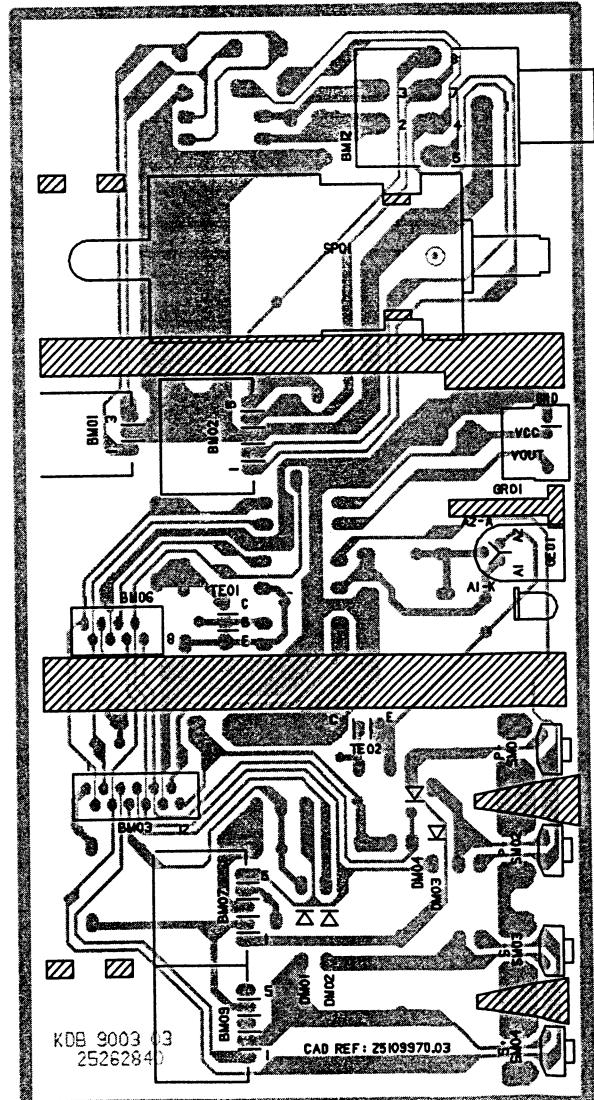


KDB 1902 - KDB 9003

COMPONENT SIDE - COTE COMPOSANTS -
BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES



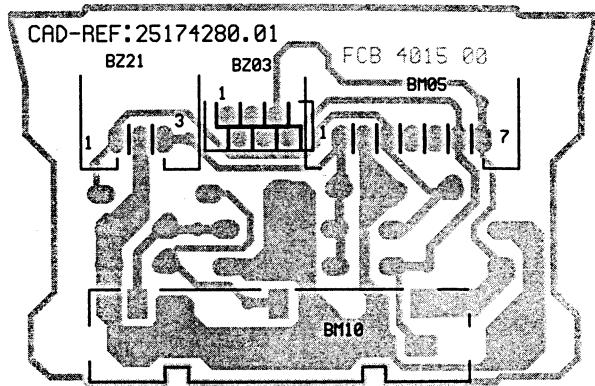
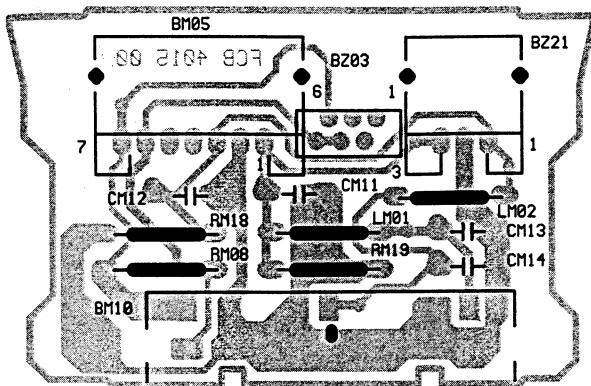
SOLDER SIDE - CÔTE SOUDURES -
LÖTSEITE - LATO SALDATURA -
LADO SOLDADURAS



FCB 1904 - FCB 4015

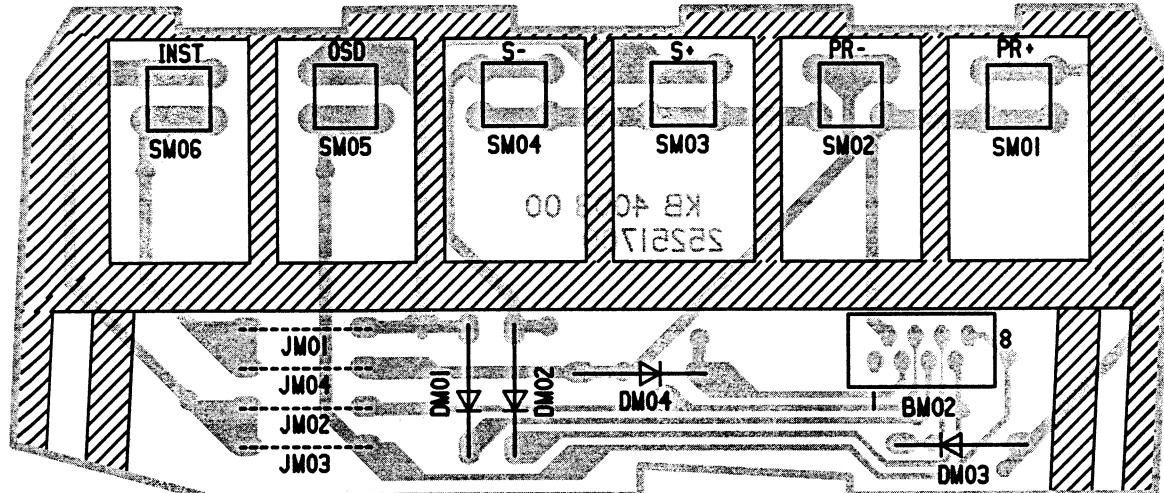
COMPONENT SIDE - CÔTE COMPOSANTS -
BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES

SOLDER SIDE - CÔTE SOUDURES -
LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS

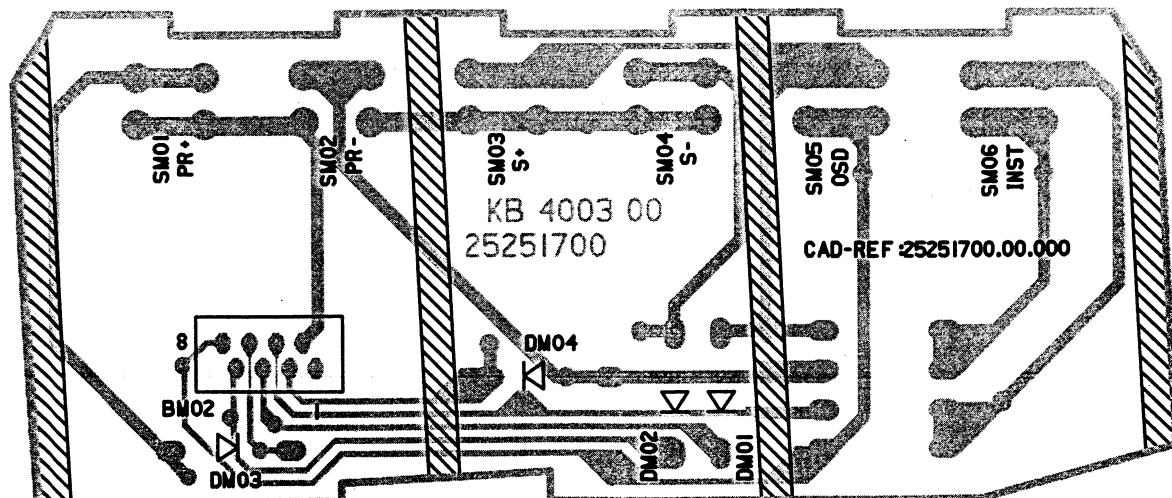


KB4003

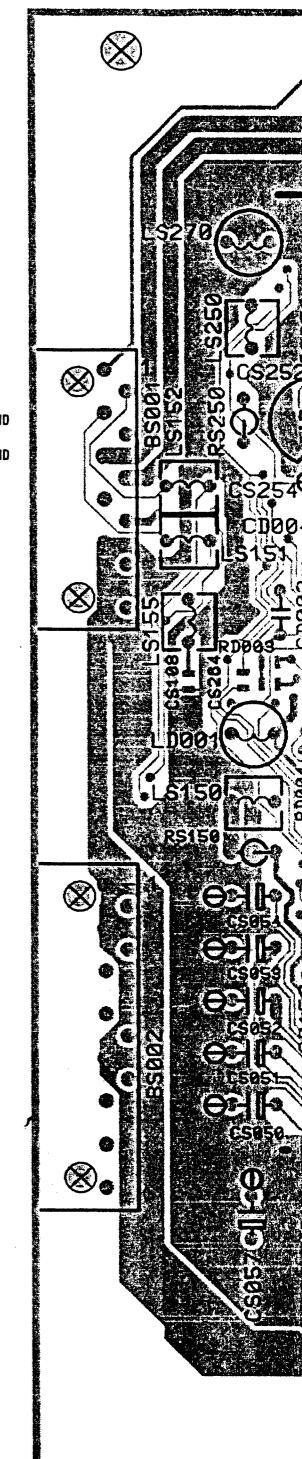
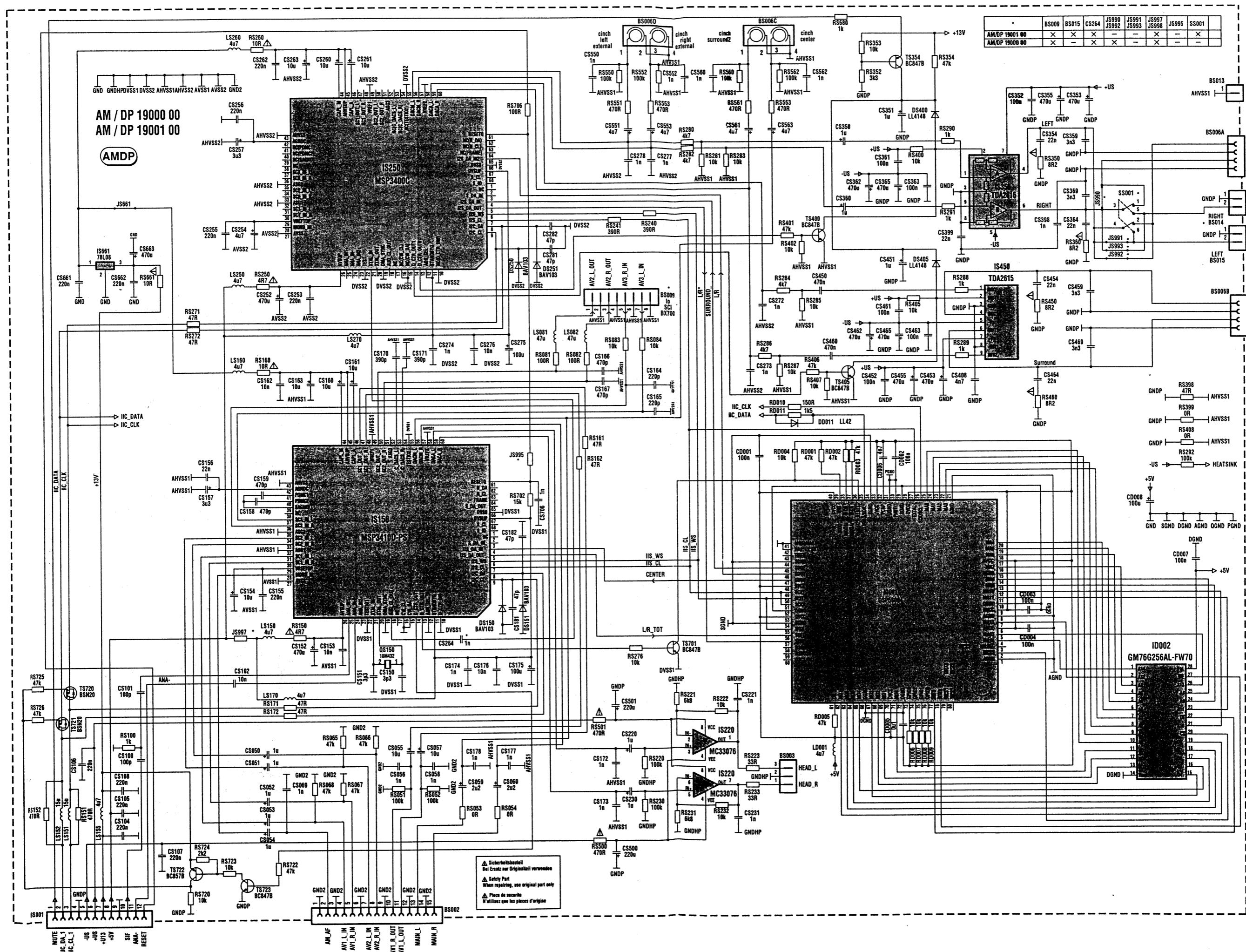
COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES



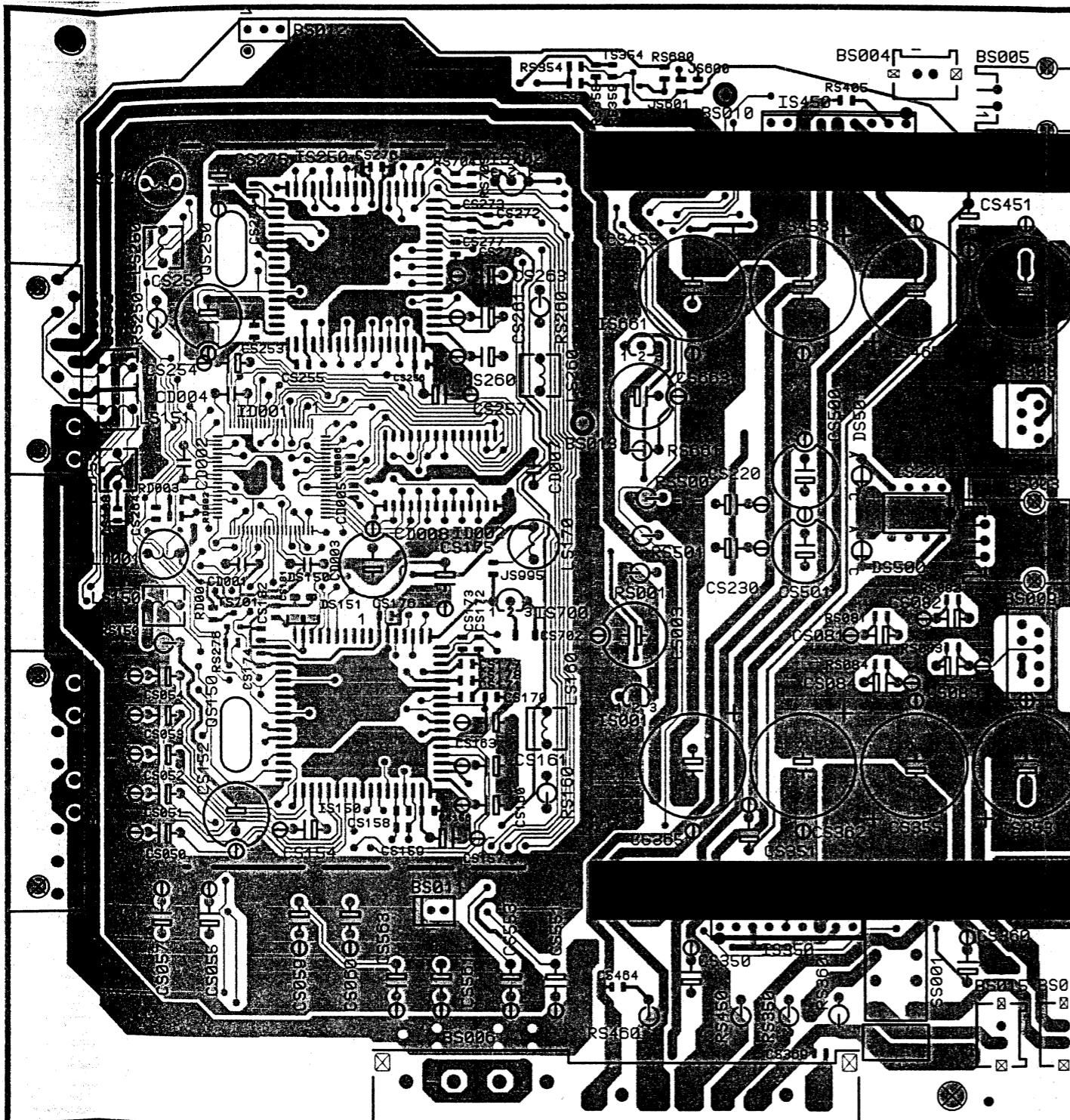
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS



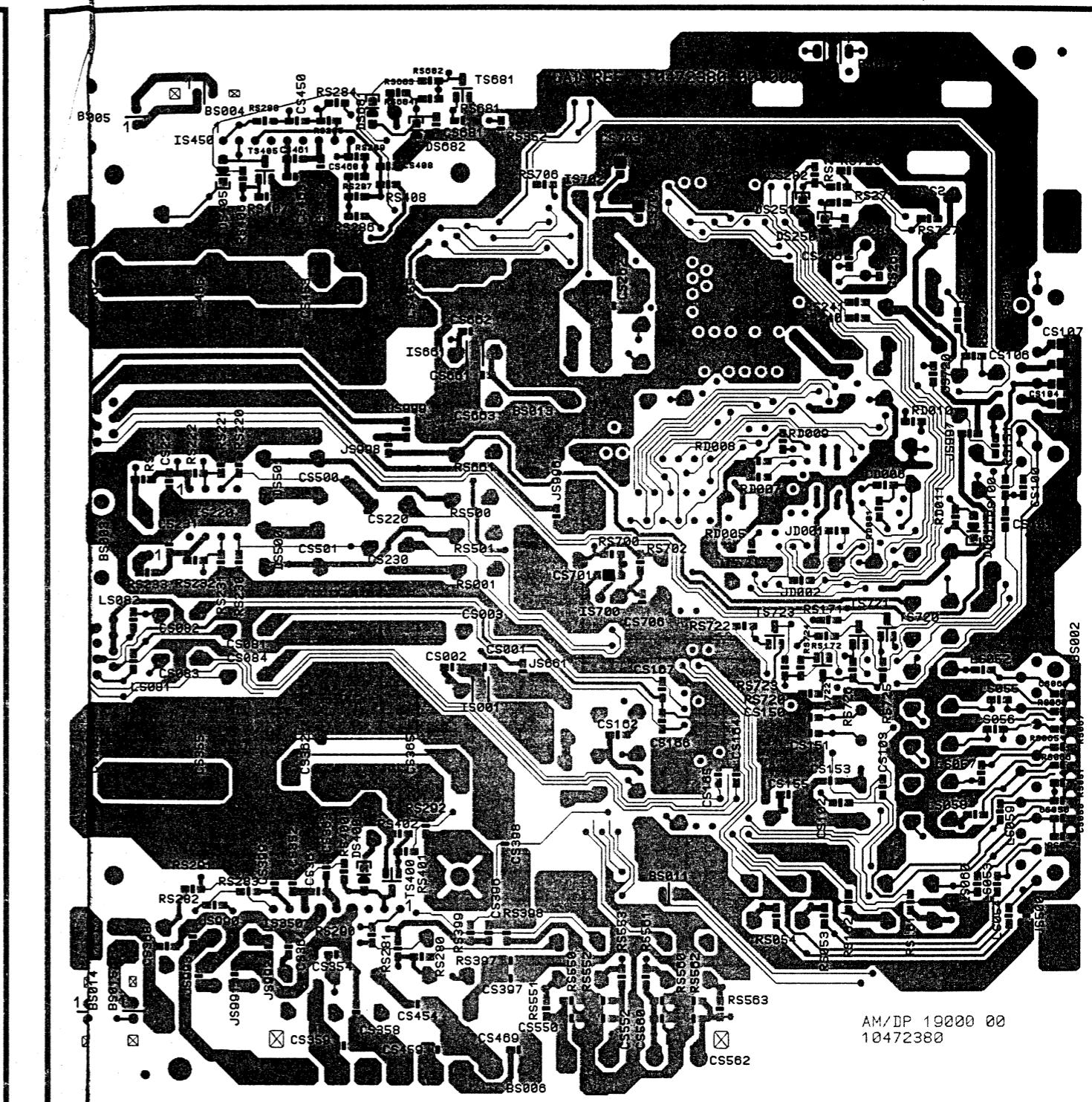
AUDIO SIGNAL/DOLBY MODULE - MODULE AUDIO/DOLBY - TON SIGNAL/DOLBY BAUSTEIN - MODULO AUDIO/DOLBY - MÓDULO AUDIO/DOLBY

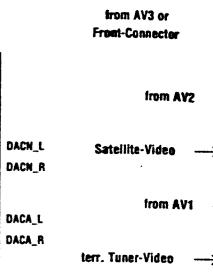
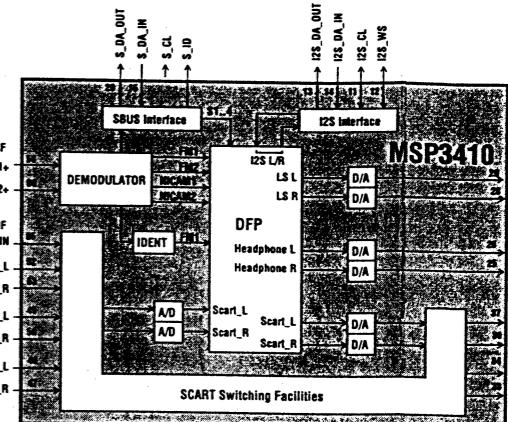
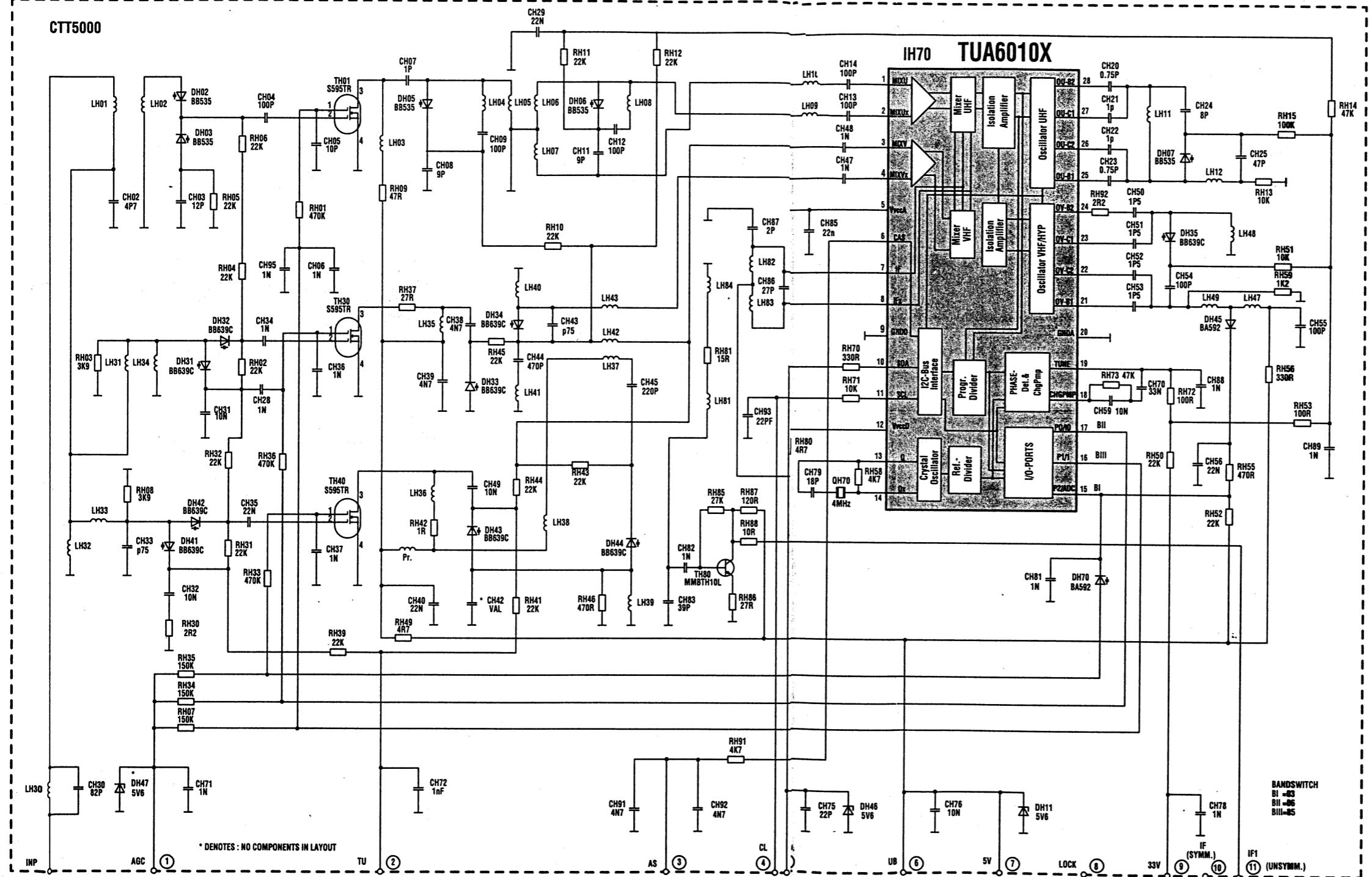


COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSEITE
LATO COMPONENTI - LADO COMPONENTES

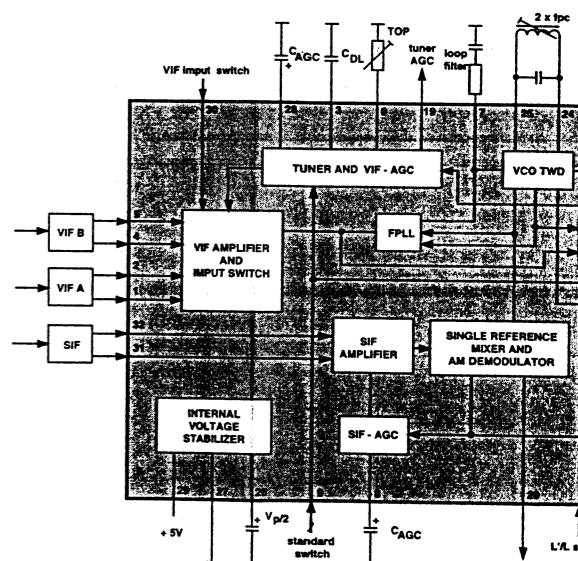


SOLDER SIDE - CÔTE SoudURES - LÖTSEITE - LATO SALDATURA - LADO SOLDADURAS





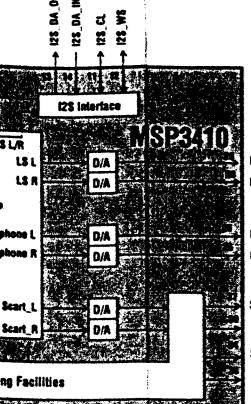
II50 - TDA9811



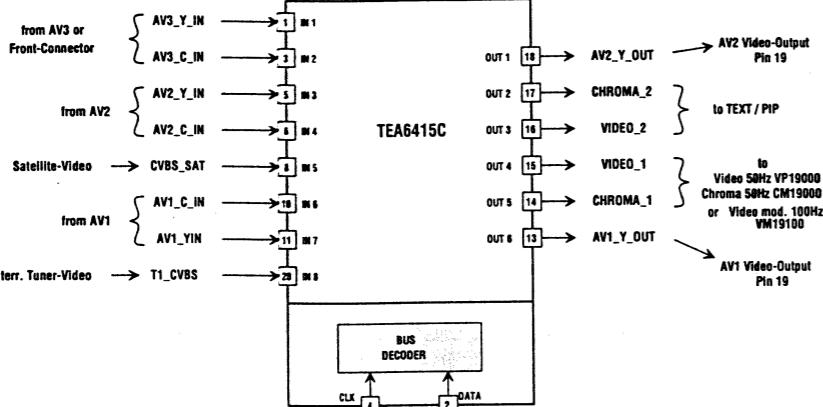
IV602 - TDA4663

INTEGRATED CIRCUITS BLOCK DIAGRAMS - SYNOPTIQUES INTERNES DES CIRCUITS INTEGRES - INTEGRIERTE SCHALTUNGEN BLOCKSCHALTBILDER
SCHEMA A BLOCCHI DEL CIRCUITI INTEGRATI - VISTA INTERNA DE LOS CIRCUITOS INTEGRADOS

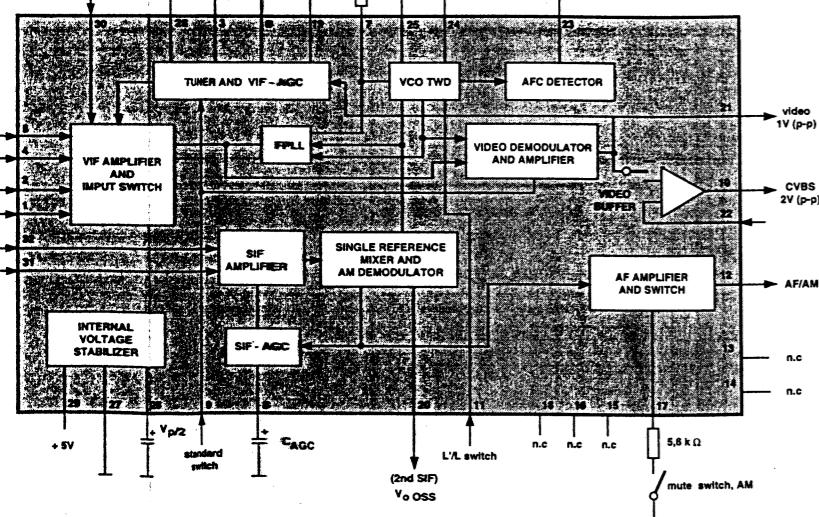
ISP3410



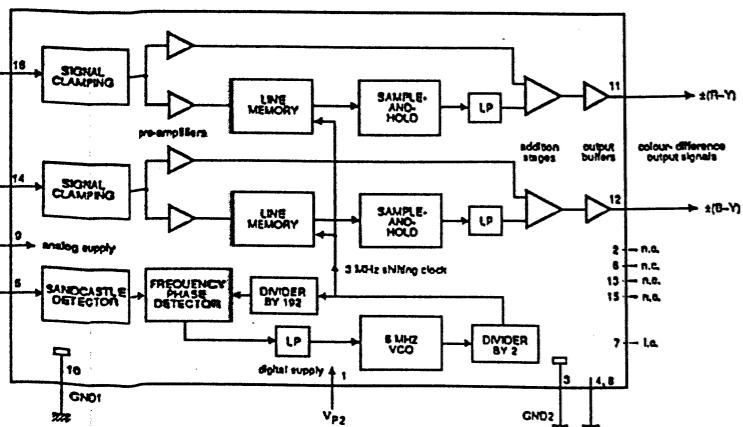
IX900 - TEA6415C



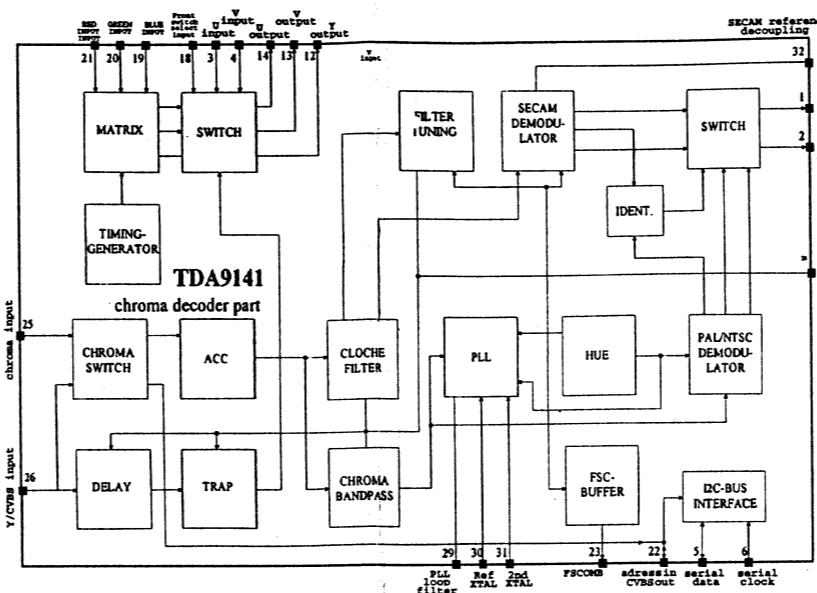
II50 - TDA9811



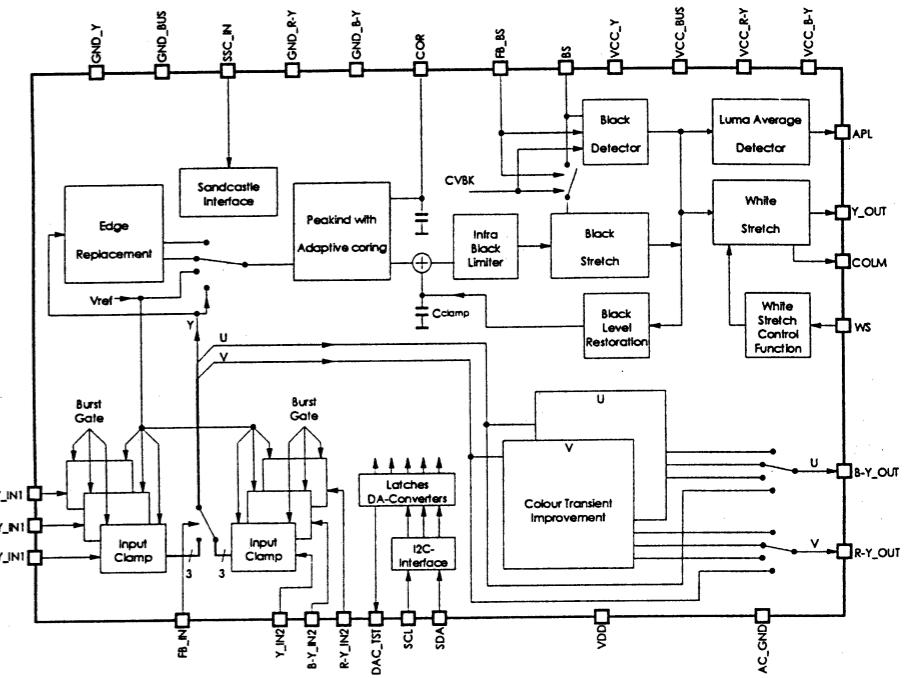
IV602 - TDA4665T



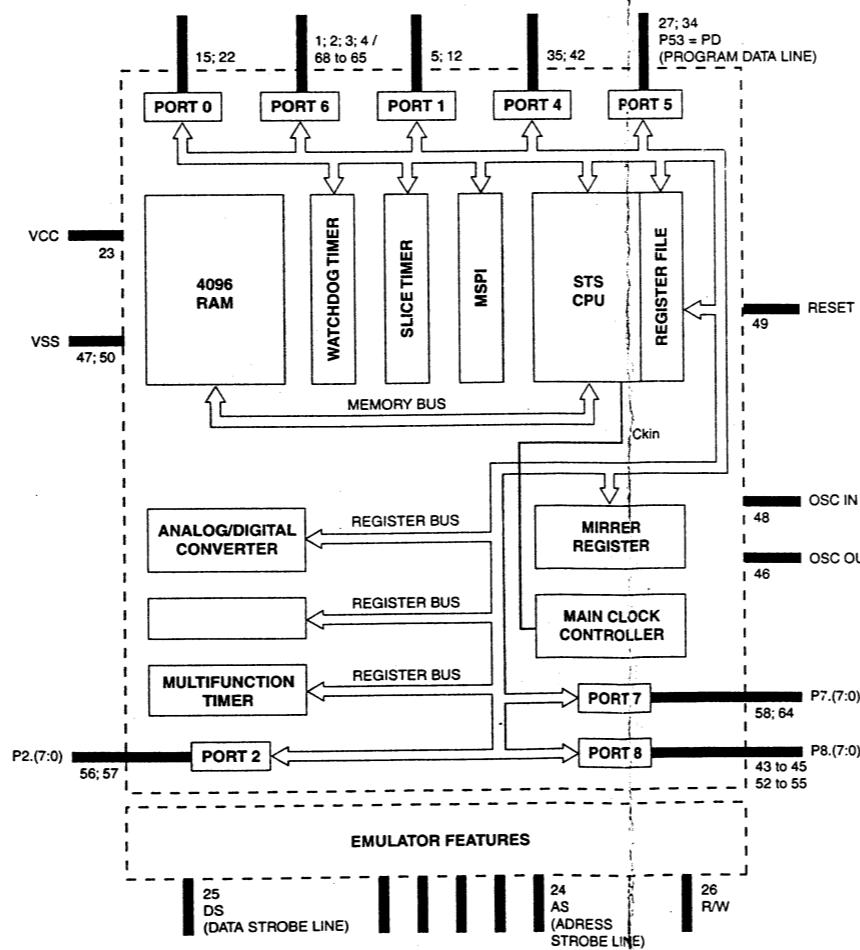
IV601 - TDA9143



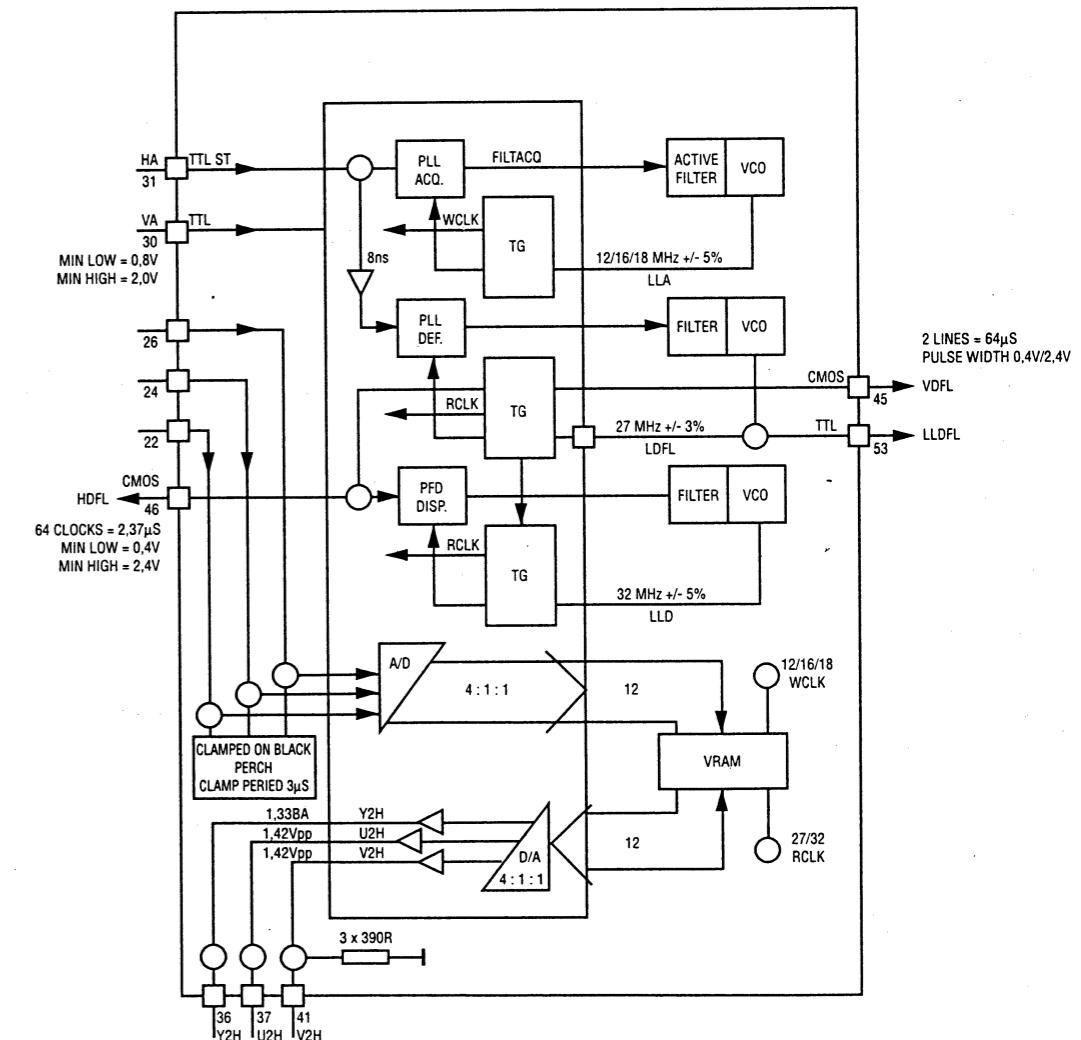
IV001 - STV2165



IR01 - ST90R92



IV308 - DMU0



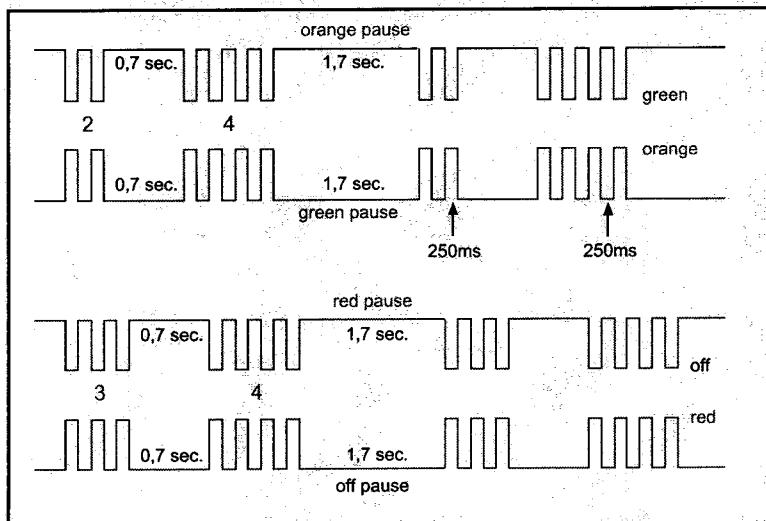
ALLGEMEINE INFORMATIONEN - LED VERHALTEN

LED BLINKZEICHEN

Übermittlung von Informationen

Die Fehler-Codes werden von der roten LED angezeigt.

Zählen Sie die Leuchtmpulse: Sie werden in zwei Blinkfolgen, abgetrennt durch eine Pause von 0,7 sek., eingeteilt und verschiedene Male wiederholt. Zwischen jeweils zwei Codes ist eine Pause von 1,7 sek.



CODES	FEHLER
11	Audio MSP Prozessor antwortet nicht.
12	Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13	Audio DSP Prozessor antwortet nicht. (Dolby)
14	IC STV2161/62 antwortet nicht
15	IC STV2151 / TDA9143 antwortet nicht
16	DMU0 Upconverter (Videomodul) antwortet nicht
17	Audio- oder Dolby-modul nicht erkannt
18	TEA6415C antwortet nicht (SCAR T Schalter)
19	Tuner CTT5000 antwortet nicht
21	I2C Bus1 data line ist auf low
22	I2C Bus2 data line ist auf low
23	I2C Bus1 clock line ist auf low
24	I2C Bus2 clock line ist auf low
25	Geschaltete 5V nicht vorhanden
26	Röhre wird nicht rechtzeitig warm
27	Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29	DRAM des Megatext defekt
31	RAM antwortet nicht
32	Ein software-timer wurde angefordert, ist aber noch nicht bereit
33	STV 2165 (PSI 100Hz) antwortet nicht
34	NVM Chip antwortet nicht (X24C32)
35	+13V nicht vorhanden
36	NVM adresse nicht gefunden
37	Unerwarteter Zustand an NMI (Interrupt) line gefunden, (Mögliche Ursache = Röhren-Überschlag")
38	M3L Bus des Megatext blockiert
39	Megatext (SDA 5273) antwortet nicht
41	Bus1 (data line) nicht möglich zu reaktivieren
42	Bus2 (data line) nicht möglich zu reaktivieren
43	MCU (Motion Mastering Up-Converter) antwortet nicht
44	Konvergenz IC (STV2040) antwortet nicht
45	falsches V ideomodul (falscher MCU)
46	NVRAM für Konvergenz antwortet nicht
47	Bildmuster im Konvergenz-IC ist defekt
48	Bildmuster aus dem NVRAM ist defekt
49	Bildrohrtyp "R" ist eingestellt, aber kein Konvergenz-IC gefunden
51	PIP antwortet nicht
	Falsches Videotextmodul.



ALLGEMEINE INFORMATIONEN

VORGEHENSWEISE

1 - BEIM EINSCHALTEN

Beobachten Sie das Verhalten der 2-farbigen LED: Merken Sie sich das Einschaltverhalten und vergleichen Sie es mit den normalen Zyklen.

Hierdurch kann die Zeit bis der Fehlerzeitpunkt und die zu überprüfende Stufe festgestellt werden.

2 - TROUBLE SHOOTING ABLAUF: LED-VERHALTEN

In bestimmten Fällen leuchtet die LED zum Übertragen einer Fehlerinformation auf:

LED Aufleuchten: Übertragung der Fehlerinformation

Zählen der Fehlerinformation: Kodiert in zwei Impulsbündeln, unterbrochen durch 0,7 s Pause.

Dieses wiederholt sich mehrere Male.

Sehen Sie in der Fehlercodetabelle



Diese Informationen sind genauer als Farbänderungen aber unvollständig, da verschiedene Ursachen denselben Code verursachen.

HINWEIS:

Im Service Mode ist es möglich die letzten Fehler-Codes aufzurufen, die sich in dem Fernsehgerät ereignet haben.

3 - FEHLERSUCHE

Funktionen der Stufen 1 und 2: Messungen mit dem Oszilloskop sind für die beiden separaten Vorgänge durchzuführen.

a - Das Gerät arbeitet ganz oder teilweise:

- Benutzen Sie die LED Informationen der Fehlersuchmethode 1 und 2.

Schauen Sie ebenfalls bei Fehlersuche nach Symptomen nach.

b - Das Fernsehgerät schaltet permanent oder periodisch ab:

- Beobachten Sie das LED-Verhalten (rotes Aufleuchten, konstantes orange gefolgt von Aufleuchten, usw.)

Wählen Sie das zutreffende Kästchen in der Spalte: Fehlersuche durch LED-Verhalten.

INFORMATIONEN

Fernsehgeräte mit dem Chassis ICC19 arbeiten teilweise auch ohne die Module DVT, Sound, CRT, Chroma (50Hz) und VM Video (100Hz).

Dieser Punkt kann hilfreich sein wenn das Videomodul das Gerät in den Schutz-Mode schaltet.

Sehen Sie in die Gerätekonfigurationstabelle



GENERAL INFORMATION - LED BEHAVIOUR

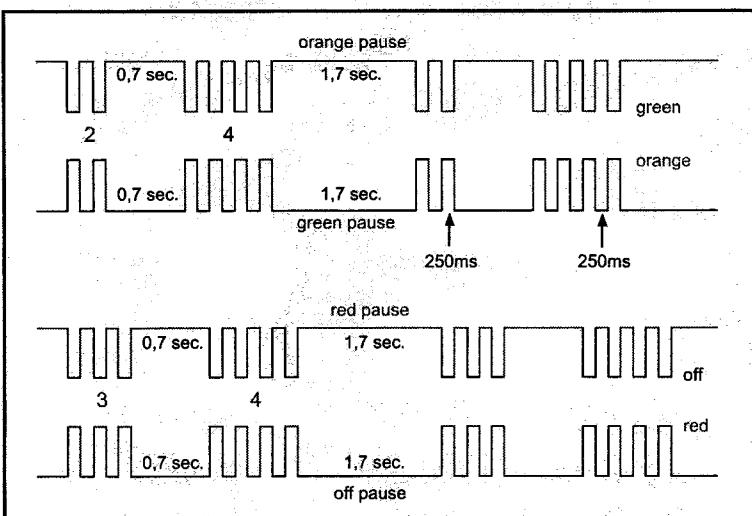
LED FLASHES

Message transmission.

The Error codes are signalled by the RED Standby LED.

Count number of flashes : error code is signalled in two burst separated by a 0.7 s pause and repeated several times.

There is 1.7 s between each code sequence .



CODES	DEFAULT
11	1st Audio_MSP doesn't answer
12	2nd Audio-MSP doesn't answer
13	Audio-DSP doesn't answer
14	Video IC STV2161/2 doesn't answer
15	Chroma IC 2151/9143 doesn't answer
16	Upconverter DMU0 doesn't answer
17	Audio (or Dolby) module not detected
18	SCART IC TEA6415C doesn't answer
19	Tuner CTT5000 doesn't answer
21	I2C Bus1 data line held low
22	I2C Bus2 data line held low
23	I2C Bus1 clock line held low
24	I2C Bus2 clock line held low
25	Switched 5V not available
26	Tube doesn't get warm in time
27	Deflection detects >3 times protection (problem detected on "breathing" line)
29	DRAM memory of Megatext defect
31	RAM is full
32	A Software-timer has been requested, bus is not available yet
33	The PSI chip (STV2165) doesn't answer
34	The NVM (X24C32) chip doesn't answer
35	13V not available
36	Wrong addr. NVRAM passed to the bus-handler
37	Unexpected level on NMI (Interrupt) line found (possible cause : tube flashover)
38	M3LBus for Megatext is blocked
39	Megatext (SDA5273) doesn't answer
41	bus1 Data line not recoverable
42	bus2 Data line not recoverable
43	MCU (Motion Mastering Up-Converter) doesn't answer
44	Convergence IC (STV2040) doesn't answer
45	Defect "Video Module" is detected
46	"Default" NVRAM of DCU doesn't answer
47	Test Pattern chip of DCU defect
48	Test Pattern NVRAM convergence chip defect
49	Convergence module doesn't answer anymore
51	PIP Module doesn't answer
52	The Teletext module is not conform.



GENERAL INFORMATION

METHODOLOGY

1 - SWITCHING "ON" THE TV :

- Observe the behaviour of the two-coloured LED: note the various stages and compare them with the normal cycle of events.

By watching this, the point at which the problem arises and the part of the circuit which needs to be investigated can be identified.

2 - TROUBLE SHOOTING PROCEDURE: LED BEHAVIOUR

In certain cases a flashing LED signifies the transmission of an error code message:

LED flashes : message transmission.

Count the flashes : coded into two bursts separated by a pause of 0.7 s and repeated several times.

See the error code table.



This data is more precise than LED colour changes, however, since various fault conditions generate the same error code the information signalled may be incomplete.

Please Note :

In the service mode, it is possible to consult a record of the last error codes which have occurred in the television set.

3 - FAULT FINDING :

Operation stages 1 and 2: an oscilloscope test is carried out according to two separate processes.

a - The television set operates fully or partially

- Use LED message observation fault finding methods 1 and 2. See also the fault related to fault finding by symptom.

b - The television set goes into permanent or cyclical security mode

- Observe LED behaviour (flashing red, stable orange followed by flashing, etc.).
Select the relevant box in the column (LED behaviour fault finding).

INFORMATION

The ICC19 television will partially operate without the DVT, SOUND, CRT, CHROMA (50 Hz) and VM video (100 Hz) modules remodulated.

This point may be useful if the video module causes the TV to switch to security mode.

See the television configuration table.



FEHLERSUCHE IM RPC19



- Achtung! Jede der vorgeschlagenen Manipulationen muß bei abgeschaltetem Gerät durchgeführt werden (Hauptnetzschalter aus).
- Alle Arbeiten, die bei eingeschaltetem Gerät durchgeführt werden, können Bauteile zerstören!
- Einen Trenntrafo verwenden.

Überprüfung der digitalen Konvergenzeinheit

- Der IC sollte eine ordnungsgemäße 5 V-Versorgung besitzen.
- PWAT Pin 26 von IK01 muß $>+4$ V sein, andernfalls bleibt der IC im Reset.
- Die +15 V-Versorgung von PS muß anliegen und >13 V sein.
- H- und V-Synchronisierung müssen an Pin 22 und Pin 55 von IK01 anliegen
- Am Pin 40 (REFO) muß +1 V anliegen.
- An den Pins DABV, DAGV und DARV (43, 44 und 45) von IK01 muß +1 V anliegen.
- An den Pins DABH, DAGH und DARH (49 und 50) von IK01 muß +1 V anliegen.
- An Pin 14 (ECLK) von IK01 muß ein 8,5 MHz-Takt anliegen.

Überprüfen des Konvergenznetzteiles

Arbeiten an einem defekten Gerät sind nur mit einem **Trennnetztransformator** zulässig.
Wenn kein Konvergenzbild am Bildschirm angezeigt wird, so können Sie das Konvergenznetzteil für sich prüfen.

Führen Sie folgende Schritte durch:

1. Netz ausschalten.
2. Die Verbindung von BP260 zwischen der DCU-Platine und der Konvergenz-Spannungsquelle abziehen.
3. Einen Widerstand von 270R/10W zwischen +15 V und -15 V anschließen (zum Beispiel zwischen die Kathode von DP267 und der Anode von DP265).
4. Den Kollektor und den Emitter von TP238 miteinander verbinden.
5. Netz einschalten.

Name / Position	DC-Wert(V)
CP210	298,0
DP213	33,2
CP240	16,9
CP243	-25,4
CP233	15,3
Pin 5 von IP250	30,3
Pin 4 von IP250	0,0
Kollektor von TP233	0,9
CP268	14,9
CP266	-14,9
CP262	58,7
CP264	57,9
CP271	0,0
DCU_SAFE	0,0
RP271	0,0
Pin 1 von TP250	0,0
CP210	298,0

TROUBLESHOOTING RP C19

- All of the following tests must be carried out with the MAINS switched OFF.



- Any operations carried out with the MAINS switched ON may lead to components being destroyed.
- Use isolating mains transformer.

DIGITAL CONVERGENCE UNIT CHECK

- IC should have correct +5V supply
- PWAT pin 26 of IK01 must be >+4V otherwise the IC is kept in reset.
- The + - 15V from the PS must be present and >13V
- H and V sync must be present pin nr. 22 and 55 of IK01
- at the pin REFO nr. 40 + 1V must be present
- at the pins DABV, DAGV, DARV, nr.43, 44 and 45 of IK01 +1V must be present
- at the pins DABH, DAGH, DARH nr.48, 49 and 50 of IK01 +1V must be present
- at the pin ECLK nr. 14 of IK01 a 8.5Mhz clock must be present

DIGITAL CONVERGENCE UNIT POWER SUPPLY TROUBLESHOOTING

If you have not a convergence picture on the screen it's possible to check the convergence power supply for itself.

Do the following steps.

1. Switch off the mains
2. Remove the connection of BP260 between the DCU board and the convergence power supply
3. Connect a resistor of 270R/10W between +15V and -15V. For examplee cathode of DP267 and anode of DP265.
4. Make a short circuit between collector and emitter of TP 238.
5. Switch on the mains.

Name / Position	DC value / V
CP210	298.0
DP213	33.2
CP240	16.9
CP243	-25.4
CP233	15.3
Pin 5 of IP250	30.3
Pin 4 of IP250	0.0
Collector of TP233	0.9
CP268	14.9
CP266	-14.9
CP262	58.7
CP264	57.9
CP271	0.0
DCU_SAFE	0.0
RP271	0.0
Pin 1 of TP250	0.0
CP210	298.0

ÜBERPRÜFEN DER STROMVERSORGUNG UND AUFFINDEN EINES SCHUTZSCHALTUNGSFEHLERS



Achtung! Jede der vorgeschlagenen Manipulationen muß bei abgeschaltetem Gerät durchgeführt werden (Hauptnetzschalter aus).

Alle Arbeiten, die bei eingeschaltetem Gerät durchgeführt werden, können Bauteile zerstören!

Für die Analyse von Schutzschaltungsproblemen kann folgende Konfiguration verwendet werden:
In diesem Zustand arbeitet die Stromversorgung in normalem Regelzyklus, jedoch ohne Ablenkung und ohne Schutzschaltungsinformationen, damit der Grund für Probleme gefunden werden kann.

- Haupschalter aus
- CP170 Kurzschluß (K/6)*
- JL010 entfernen (M8)* oder Pin6 von LL08 ablöten
- Widerstand 75 Ohm (4W) zwischen +Vs und -Vs löten (L.M/4-5)*

Gerät eingeschaltet: Mit folgender Konfiguration gemessen

U Syst :	50 Hz 131V	50Hz 132	50Hz 137V	100Hz 134V	100 Hz 137V	100 Hz 140V
Usyst (P/5)* (V+/-5V)	131.5	133	138	134.3	141	140
U vert / CP130 (P/4)* (V)	13	14.2	14.2	12.7	12.8	11.8
+Us / -Us (L/5-4)* (V)	6.4	6.4	6.4	8	8.3	6
7V / CP140 (J/3-4)* (V)	4.3	8.6	8.6	6.8	7.4	6.4
10V SBY/ K DP133 (N/5)* (V)	10.6	11.2	11.2	10.2	10.4	9.3
Vcc1 / 44-IV001 (J/7)* (V)	7.8	7.9	7.9	7.9	7.9	7.8
UVFB / K DL043 (K/8)* (V)	13.3	14.5	14.5	12.7	12.8	11.1
13V / CL042 (J/8)* (V)	0	0	0	0	0	0
200V / CL046 (P/6)* (V)	0	0	0	0	0	1.1
5V / CP143 (H/3)* (V)	0	0	0	0	0	0.2

(*) Lage des Bauelements

Schaltbild nur von der Schutzschaltung.

POWER SUPPLY CHECK AND FIND «PROT» FAILURE



All of the following tests must be carried out with the MAINS switched OFF.

Any operations carried out with the MAINS switched ON may lead to components being destroyed.

to analyse a «PROT» fault condition it is possible to use the following test configuration.
In this configuration the power supply will be working with its normal regulation loop, the deflection stage and any "PROT" information is disabled in order to locate the cause of the problem.

- MAINS switched «OFF»
- CP170 short-circuited (K/6)*
- JL010 removed (M/8)* or desolder Pin 6 of DST (LL08)
- Connect a R= 75 Ohms (4W) between +Vs and -Vs (L-M/4-5)*

- Switch «ON» TV : Measure the following voltages.

U Syst :	50 Hz 131V	50Hz 132	50Hz 137V	100Hz 134V	100 Hz 137V	100 Hz 140V
Usyst (P/5)* (V+/-5V)	131.5	133	138	134.3	141	140
U vert / CP130 (P/4)* (V)	13	14.2	14.2	12.7	12.8	11.8
+Us / -Us (L/5-4)* (V)	6.4	6.4	6.4	8	8.3	6
7V / CP140 (J/3-4)* (V)	4.3	8.6	8.6	6.8	7.4	6.4
10V SBY / K DP133 (N/5)* (V)	10.6	11.2	11.2	10.2	10.4	9.3
Vcc1 / 44-IV001 (J/7)* (V)	7.8	7.9	7.9	7.9	7.9	7.8
UVFB / K DL043 (K/8)* (V)	13.3	14.5	14.5	12.7	12.8	11.1
13V / CL042 (J/8)* (V)	0	0	0	0	0	0
200V / CL046 (P/6)* (V)	0	0	0	0	0	1.1
5V / CP143 (H/3)* (V)	0	0	0	0	0	0.2

(*) Components location

safety circuit block diagram only



ALLGEMEINE INFORMATIONEN

VORGEHENSWEISE

1 - BEIM EINSCHALTEN

Beobachten Sie das Verhalten der 2-farigen LED: Merken Sie sich das Einschalt- verhalten und vergleichen es mit den normalen Zyklen.

Hierdurch kann die Zeit bis der Fehlerzeitpunkt und die zu überprüfende Stufe festgestellt werden.

2 - TROUBLE SHOOTING ABLAUF: LED-VERHALTEN

In bestimmten Fällen leuchtet die LED zum Übertragen einer Fehlerinformation auf:

LED Aufleuchten: Übertragung der Fehlerinformation

Zählen der Fehlerinformation: Kodiert in zwei Impulsbündeln, unterbrochen durch 0,7 s Pause.

Dieses wiederholt sich mehrere Male.

Sehen Sie in der Fehlercodetabelle



Diese Informationen sind genauer als Farbänderungen aber unvollständig, da verschiedene Ursachen denselben Code verursachen.

HINWEIS:

Im Service Mode ist es möglich die letzten Fehler-Codes aufzurufen, die sich in dem Fernsehgerät ereignet haben.

3 - FEHLERSUCHE

Funktionen der Stufen 1 und 2: Messungen mit dem Oszilloskop sind für die beiden separaten Vorgänge durchzuführen.

a - Das Gerät arbeitet ganz oder teilweise:

- Benutzen Sie die LED Informationen der Fehlersuchmethode 1 und 2.

Schauen Sie ebenfalls bei Fehlersuche nach Symptomen nach.

b - Das Fernsehgerät schaltet permanent oder periodisch ab:

- Beobachten Sie das LED-Verhalten (rotes Aufleuchten, konstantes orange gefolgt von Aufleuchten, usw.)

Wählen Sie das zutreffende Kästchen in der Spalte: Fehlersuche durch LED-Verhalten.

INFORMATIONEN

Fernsehgeräte mit dem Chassis ICC19 arbeiten teilweise auch ohne die Module DVT, Sound, CRT, Chroma (50Hz) und VM Video (100Hz).

Dieser Punkt kann hilfreich sein wenn das Videomodul das Gerät in den Schutz-Mode schaltet.

Sehen Sie in die Geräte Konfigurationstabelle



BEHAVIOUR OF ICC19 WITHOUT CERTAIN MODULES ARE FITTED OR REMOVED

CONFIGURATION				ERROR CODE	ALL VOLTAGES	Signal at pin 19 BV011	Signal at pin 2-4-6 BV001	picture
VM	AM-FM	DVT	CRT					
without	without	without	without (1)	17	ok (1)	no	no	no
with	without	without	without (1)	17	ok (1)	no	no	no
with	with	without	without (1)	39	ok (1)	no	no	no
with	with	with	without (1)	26	ok (1)	ok	no	no
with	without	with	with	17	ok	ok	ok	ok
with	with	without	with	39	ok	ok	ok	ok (2)
without	with	with	with	15	ok	noise	pulse 100Hz	no

(1) : If the CRT is not connected, the voltage across CL046 will increase up to 250V instead 202V, this is due to the lack of a discharge path. Before to reconnecting BL050 and BP110 it is **imperative to discharge CL046 with a resistor (22k or 33k)**.

(2) : In this case, the picture will only be visible after 1mn.



VERHALTEN DES CHASSIS ICC19 MIT EINZELNEN GEZOGENEN MODULEN ODER KOMPLETT OHNE MODULE

KONFIGURATION				FEHLER CODE	ALLE SPANNUNGEN	Signal an Pin 19 BV011	Signal an Pin 2-4-6 BV001	Bild
VM	AM-FM	DVT	CRT			ok (1)	nein	
ohne	ohne	ohne	ohne (1)	17	ok (1)	nein	nein	nein
mit	mit	ohne	ohne (1)	17	ok (1)	nein	nein	nein
mit	mit	ohne	ohne(1)	39	ok (1)	nein	nein	nein
mit	mit	mit	ohne (1)	26	ok (1)	ok	nein	nein
mit	ohne	mit	mit	17	ok	ok	ok	ok
mit	mit	ohne	mit	39	ok	ok	ok	ok (2)
ohne	mit	mit	mit	15	ok	Rauschen	Frequenz.100Hz	nein

(1) : Wenn das CRT Modul nicht angeschlossen ist, erhöht sich die Spannung an CL046 auf über 250V anstatt 202V. Der Kondensator wird nicht entladen. Bevor Sie BL050 und BP110 wieder anschließen, muß CL046 unbedingt mit einem Widerstand (22k oder 33k) entladen werden.

(2) : In diesem Fall wird das Bild nach 1 Min sichtbar.



ICC19 100 Hz - BASIC- / IM- / MM- SCENIUM Version

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
A66EGW 48X322	4/3 28"MP INVAR BSVM	CT 19101 34	10362880	10460360	JP915	134V	ICC19 IM
		CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
A59EGD048X322	4/3 25"SF INVAR BSVM	CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
A68EGD038X322	4/3 29"SF INVAR BSVM	CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
		CT 19152 37	10520610	10510870	JP914	137V	ICC19 MM
A66EHJ 48X 12	4/3 28"MP AK; no BSVM	CT 19103 34	10556010	10551170	JP915	134V	ICC19 BASIC
A68EGV038X322	4/3 29"SF SS INVAR BSVM	CT 19155 37	10562010	10551150	JP914	137V	ICC19 IM/MM
A80AJA 16X120	4/3 33"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
A80EJA 16X122	4/3 33"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
A90AFX 16X120	4/3 37"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
W66EGV023X122	16/9 28"SF INVAR BSVM	CT 19111 34	10444810	10468160	JP915	134V	ICC19 IM
W76EGV023X122	16/9 32"SF INVAR BSVM	CT 19111 34	10444810	10468160	JP915	134V	ICC19 IM
W76EGX023X122	16/9 32"SF INVAR BSVM	CT 19151 34	10520600	10520330	JP915	134V	ICC19 MM
W66EGV023X122	16/9 28"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	ICC19 MM + IM + PVM (PANORAMA)
W76EGX023X122	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W76EGV023X122	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W76EGV023X878	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W66LPQ356X99	16/9 28"SF INVAR BSVM	CT 19551 40	10604230	10647440	JP917	140V	SCENIUM XF TUBE
W76LPF350X97	16/9 32"SF INVAR BSVM	CT 19551 40	10604230	10647440	JP917	140V	

RP C19

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
RP - 4/3	4/3 46" - 52"	CT 19400 34	10530110	10521310	JP915	134V	RP C19 4/3
RP - 16/9	16/9 52"	CT 19450 34	10615440	10641600	JP915	134V	RP C19 16/9

ICC19 50 Hz

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
A59EGD048X300	4/3 25"SF	CT 19005	31	10510890	10517720	JP915	131V
A66ECY13X15	4/3 28"MP	CT 19003	32	10351520	10517740	JP914	132V
A66EHJ 13X 15	4/3 28"MP AK	CT 19003	32	10351520	10517740	JP914	132V
A68EGD038X300	4/3 29"SF	CT 19005	31	10510890	10517720	JP915	131V
A80AEJ15X01	4/3 33"MP	CT19006	31	10351840	10517720	JP915	131V
W66EGV023X115	16/9 28"SF	CT 19032	37	10391010	10517750	JP917	137V
W76EGX023X115	16/9 32"SF	CT 19032	37	10391010	10517750	JP917	137V

U SYS . / REFERENCE TUBE



CONTROLES DES CIRCUITS DE DEVIATION LIGNE



CONTROLES DES CIRCUITS DE DEVIATION TRAME



ICC19 100 Hz - BASIC- / IM- / MM- SCENIUM Version

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
A66EGW 48X322	4/3 28"MP INVAR BSVM	CT 19101 34	10362880	10460360	JP915	134V	ICC19 IM
		CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
A59EGD048X322	4/3 25"SF INVAR BSVM	CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
A68EGD038X322	4/3 29"SF INVAR BSVM	CT 19105 37	10351530	10468070	JP914	137V	ICC19 IM
		CT 19152 37	10520610	10510870	JP914	137V	ICC19 MM
A66EHJ 48X 12	4/3 28"MP AK; no BSVM	CT 19103 34	10556010	10551170	JP915	134V	ICC19 BASIC
A68EGV038X322	4/3 29"SF SS INVAR BSVM	CT 19155 37	10562010	10551150	JP914	137V	ICC19 IM/MM
A80AJA 16X120	4/3 33"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
A80EJA 16X122	4/3 33"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
A90AFX 16X120	4/3 37"MP INVAR BSVM	CT 19156 37	10561990	10510870	JP914	137V	ICC19 IM
W66EGV023X122	16/9 28"SF INVAR BSVM	CT 19111 34	10444810	10468160	JP915	134V	ICC19 IM
W76EGV023X122	16/9 32"SF INVAR BSVM	CT 19111 34	10444810	10468160	JP915	134V	ICC19 IM
W76EGX023X122	16/9 32"SF INVAR BSVM	CT 19151 34	10520600	10520330	JP915	134V	ICC19 MM
W66EGV023X122	16/9 28"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	ICC19 MM + IM + PVM (PANORAMA)
W76EGX023X122	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W76EGV023X122	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W76EGV023X878	16/9 32"SF INVAR BSVM	CT 19251 40	10578550	10576740	JP917	140V	
W66LPQ356X99	16/9 28"SF INVAR BSVM	CT 19551 40	10604230	10647440	JP917	140V	SCENIUM XF TUBE
W76LPF350X97	16/9 32"SF INVAR BSVM	CT 19551 40	10604230	10647440	JP917	140V	

RP C19

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
RP - 4/3	4/3 46" - 52"	CT 19400 34	10530110	10521310	JP915	134V	RP C19 4/3
RP - 16/9	16/9 52"	CT 19450 34	10615440	10641600	JP915	134V	RP C19 16/9

ICC19 50 Hz

tube name	description	CT-Part		DST	Usys jumper	Usys	Version
A59EGD048X300	4/3 25"SF	CT 19005 31	10510890	10517720	JP915	131V	
A66ECY13X15	4/3 28"MP	CT 19003 32	10351520	10517740	JP914	132V	
A66EHJ 13X 15	4/3 28"MP AK	CT 19003 32	10351520	10517740	JP914	132V	
A68EGD038X300	4/3 29"SF	CT 19005 31	10510890	10517720	JP915	131V	
A80AEJ15X01	4/3 33"MP	CT19006 31	10351840	10517720	JP915	131V	
W66EGV023X115	16/9 28"SF	CT 19032 37	10391010	10517750	JP917	137V	
W76EGX023X115	16/9 32"SF	CT 19032 37	10391010	10517750	JP917	137V	

GENERAL INFORMATION

METHODOLOGY

1 - SWITCHING "ON" THE TV :

- Observe the behaviour of the two-coloured LED: note the various stages and compare them with the normal cycle of events.

By watching this, the point at which the problem arises and the part of the circuit which needs to be investigated can be identified.

2 - TROUBLE SHOOTING PROCEDURE: LED BEHAVIOUR

In certain cases a flashing LED signifies the transmission of an error code message:

LED flashes : message transmission.

Count the flashes : coded into two bursts separated by a pause of 0.7 s and repeated several times.

See the error code table.



This data is more precise than LED colour changes, however, since various fault conditions generate the same error code the information signalled may be incomplete.

Please Note :

In the service mode, it is possible to consult a record of the last error codes which have occurred in the television set.

3 - FAULT FINDING :

Operation stages 1 and 2: an oscilloscope test is carried out according to two separate processes.

a - The television set operates fully or partially

- Use LED message observation fault finding methods 1 and 2. See also the fault related to fault finding by symptom.

b - The television set goes into permanent or cyclical security mode

- Observe LED behaviour (flashing red, stable orange followed by flashing, etc.).
Select the relevant box in the column (LED behaviour fault finding).

INFORMATION

The ICC19 television will partially operate without the DVT, SOUND, CRT, CHROMA (50 Hz) and VM video (100 Hz) modules remodded.

This point may be useful if the video module causes the TV to switch to security mode.

See the television configuration table.



BEHAVIOUR OF ICC19 WITHOUT CERTAIN MODULES ARE FITTED OR REMOVED

CONFIGURATION				ERROR CODE	ALL VOLTAGES	Signal at pin 19 BV011	Signal at pin 2-4-6 BV001	picture
VM	AM-FM	DVT	CRT					
without	without	without	without (1)	17	ok (1)	no	no	no
with	without	without	without (1)	17	ok (1)	no	no	no
with	with	without	without (1)	39	ok (1)	no	no	no
with	with	with	without (1)	26	ok (1)	ok	no	no
with	without	with	with	17	ok	ok	ok	ok
with	with	without	with	39	ok	ok	ok	ok (2)
without	with	with	with	15	ok	noise	pulse 100Hz	no

(1) : If the CRT is not connected, the voltage across CL046 will increase up to 250V instead 202V, this is due to the lack of a discharge path. Before to reconnecting BL050 and BP110 it is imperative to discharge CL046 with a resistor (22k or 33k).

(2) : In this case, the picture will only be visible after 1mn.



SERVICE TIPS

ICC19 16/9 50 Hz CHASSIS
32WS88KE - 28WS78KE - 32WS83KP - 28WS73KD

- ANSPRECHEN DER SCHUTZSCHALTUNG UND ABSCHALTEN DES NETZTEILS BEI VIDEOBETRIEB

Ursache :

Ansprechen der Synchronisationssignal während ein oder zwei Bilder (schlechte Qualität der Videocassette).

Abhilfe :

- Ersetzen sie den Kondensator CL067 100nF 100V durch einen 1µF 63V Bestell-Nr.: 43067772.
- Ergänzen Sie den Melf Widerstand RL066 220kΩ 5% 100mW, Bestell-Nr.: 10328700.

FERNSEHGERÄTE MIT DEM CHASSIS ICC19 (50Hz, 100Hz)

- * PERMANENTE STÖRGERÄUSCHE AUS DEN LAUTSPRECHERN IM STAND-BY MODE**
- CP120 von 470µF/35V gegen 330µF/25V austauschen (Bestell-Nr. 10448410).

- * AUSFALL DES IC TDA8177F IN POSITION IF001**

ACHTUNG

Es ist unbedingt darauf zu achten für das Chassis ICC19 das IC TDA8177F (Bestell-Nr. 10352880) zu verwenden. Dieses IC für höhere Lastströme ausgelegt als das IC TDA8177 (Bestell-Nr 15053440). Dieses IC wird in Geräten mit dem Chassis TX92 verwendet.

Im Falle einer Verwechslung fällt das IC nach dem Einschalten aus.

FERNSEHGERÄTE MIT DEM CHASSIS ICC19 100 Hz (STEREO ODER DOLBY STEREO)

- MOIRE ODER SCHWARZE VERTIKALE BALKEN AUF DEM BILDSCHIRM VHF BAND I (NUR ITALIAN)**

Ursache :

Übersprechen zwischen Netzteil und Tuner.

Abhilfe :

- Ersetzen Sie den Switch Mode Trafo LP020 durch eine neunen mit der TOCOM-Nr :
 - 10553820 (Stereo)
 - 10553830 (Dolby stereo).

BETROFFENE GERÄTE/CHASSIS: ICC19 (100HZ)
28WS78M, 28WS78MP, 32WS88ME, 32WS98MP
(nur Geräte mit Serien-Nr. beginnend mit AK3025110)

Symptom/Problem:

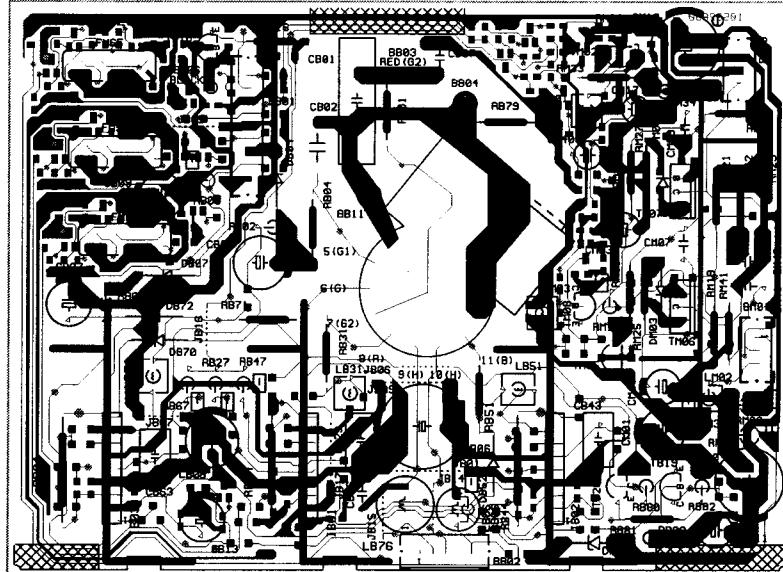
- ABHÄNGIG VON DER AUSRICHTUNG DES GERÄTES IM ERDMAGNETFELD IST EINE ROTATION DES BILDES MÖGLICH.
DER EFFEKT IST BEI VIDEOTEXT ODER EINGEBLENDETEN UNTERTITELN BESONDERS SICHTBAR.**

Abhilfe:

Abgleich der Erdfeldkorrektur. Der Einsteller (Poti) befindet sich auf der Erdfeldkorrekturplatine (EFC). Sollte keine Erdfeldkorrekturplatine eingebaut sein, kann diese nachgerüstet werden (Best-Nr. 350 592 70).

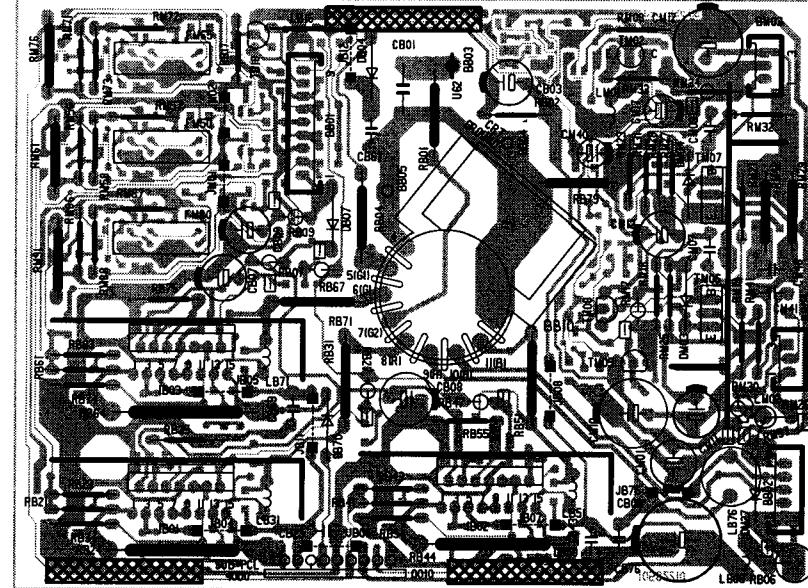
CRT BS 19200 - CRT BS 19201

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI -
LADO COMPONENTES

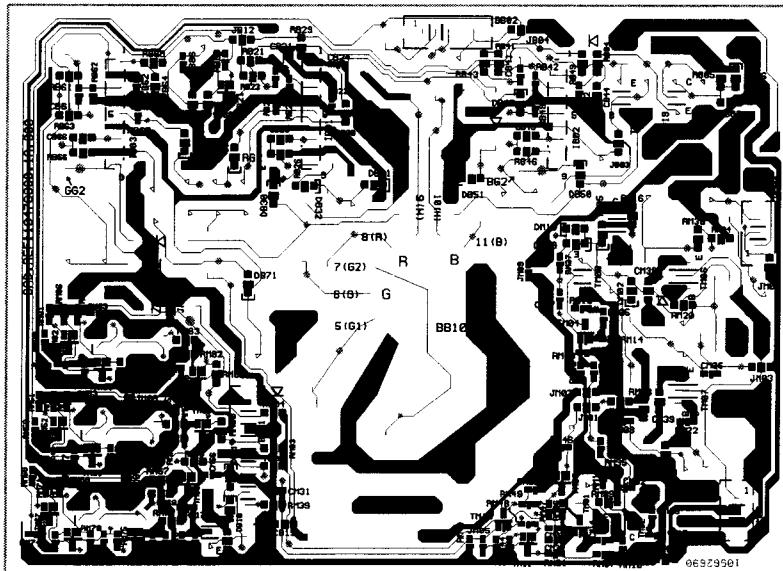


CRT BS 19100 - CRT BS 19400

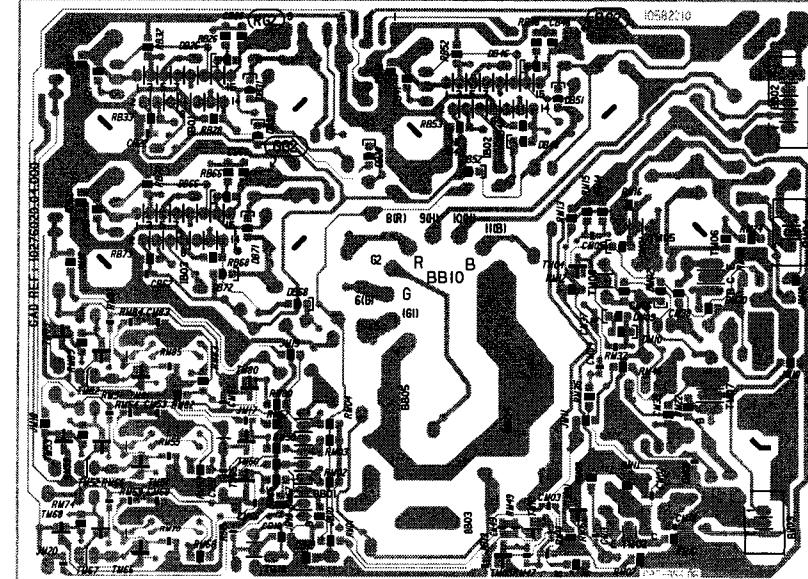
COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI -
LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURA - LADO SOLDADURAS

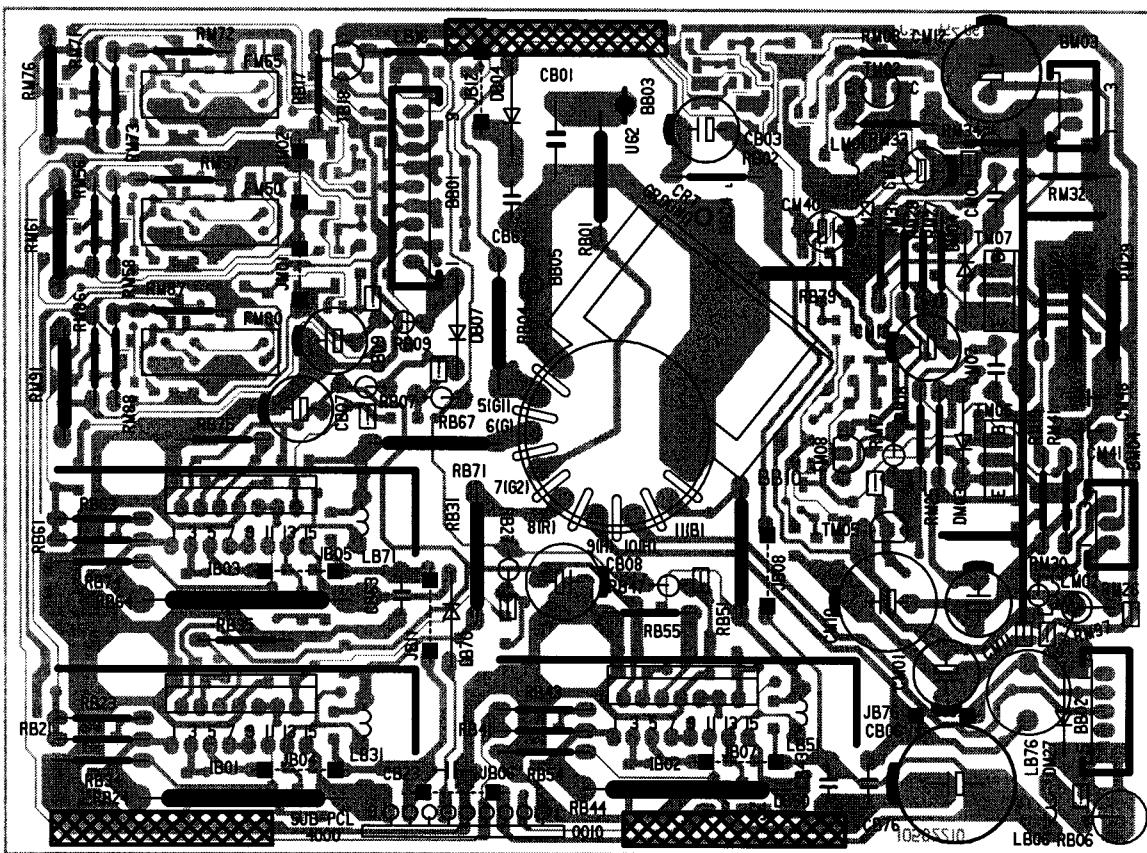


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

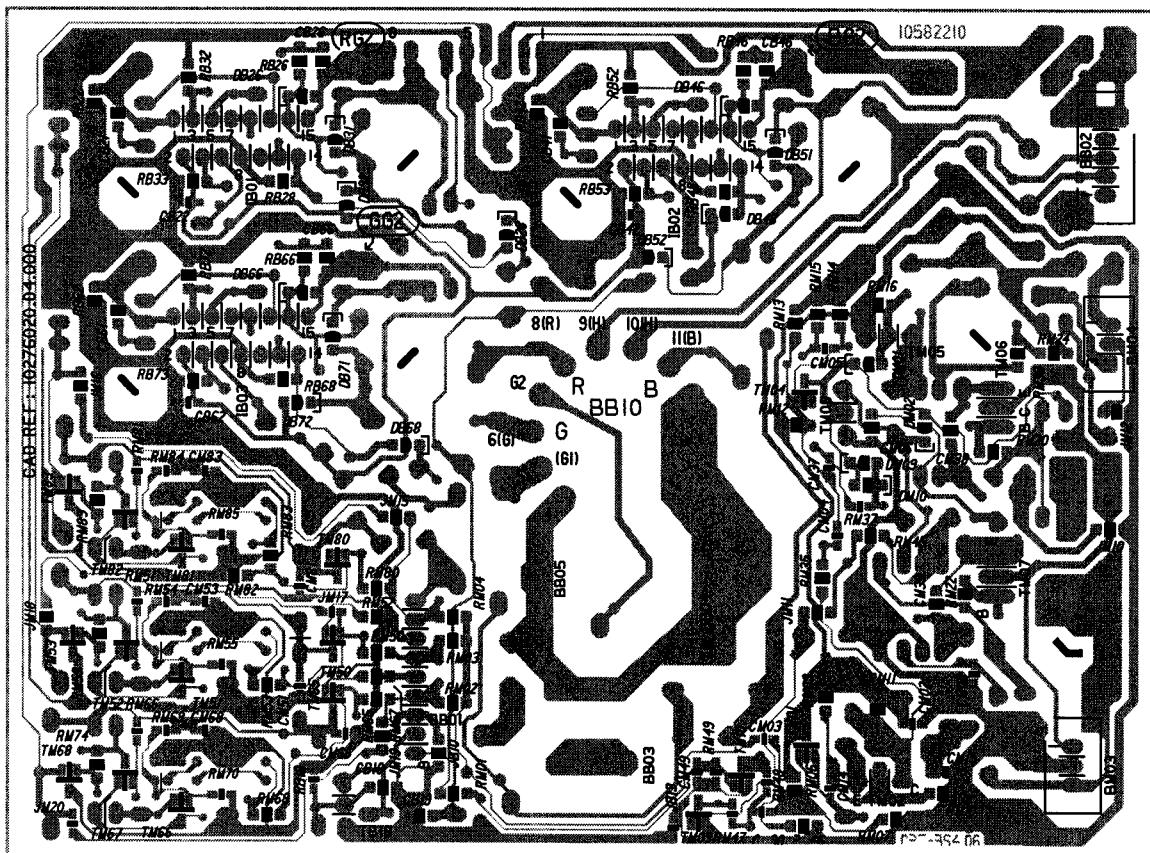


CRT BS 19100 - CRT BS 19400

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSITE - LATO COMPONENTI -
LADO COMPONENTES

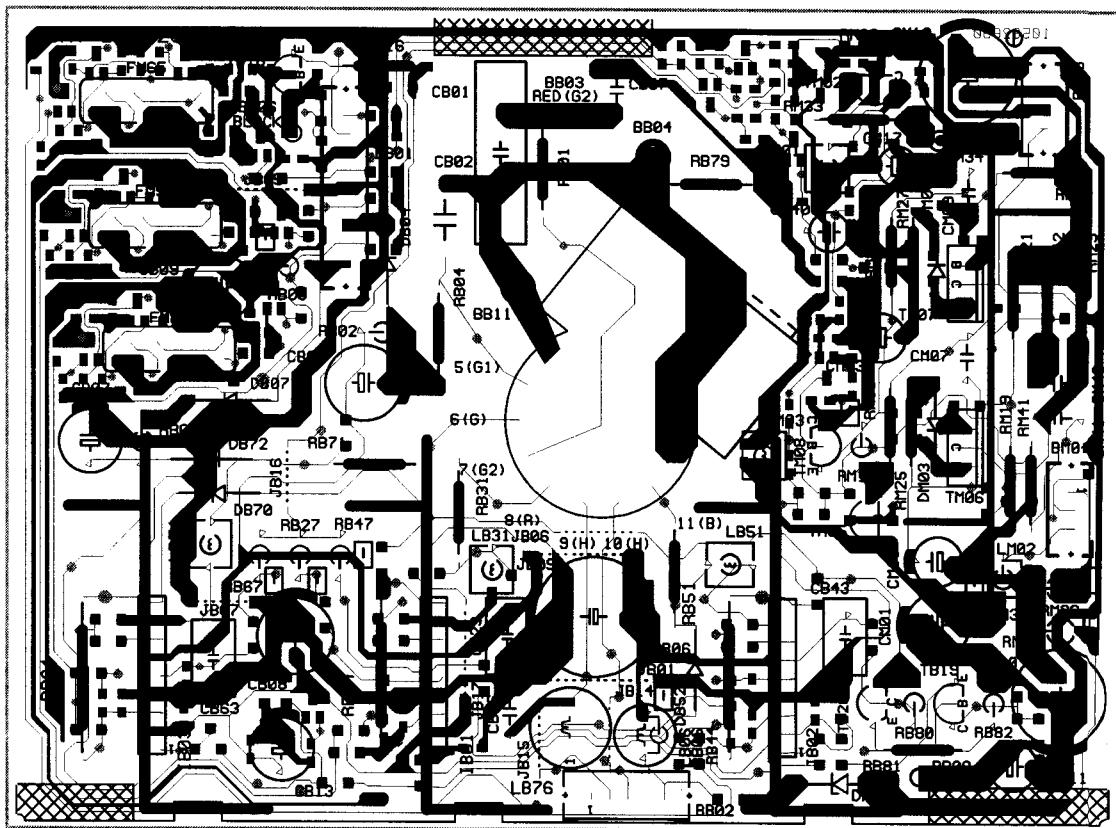


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

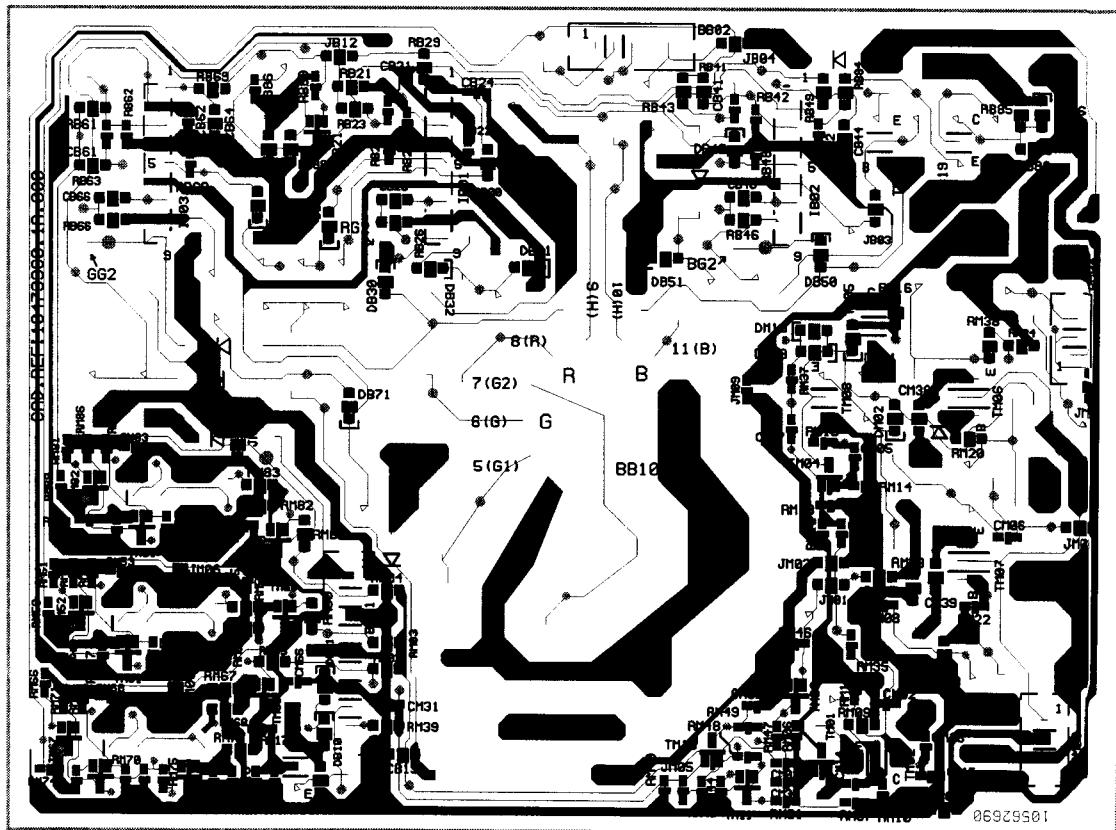


CRT BS 19200 - CRT BS 19201

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI -
LADO COMPONENTES



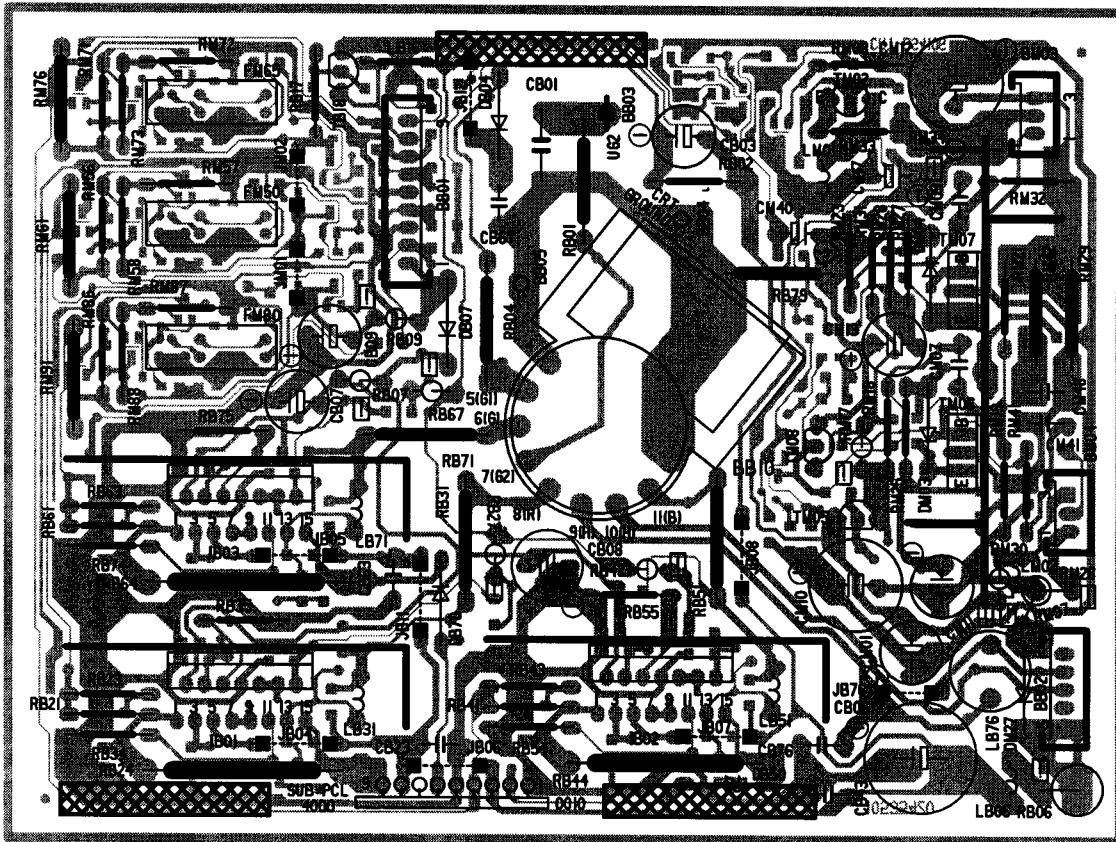
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



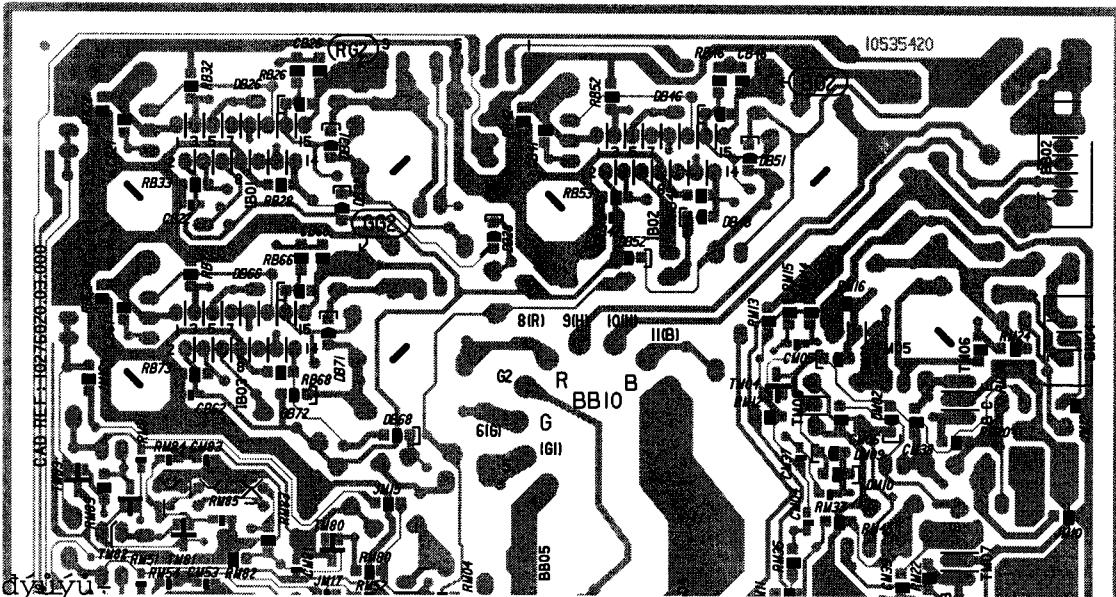
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

CRT BS19100

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURA - LADO SOLDADURAS



LIST OF ABBREVIATIONS - LISTE DES ABBREVIATIONS - ABKÜRZUNGEN
LISTA DELLE ABBREVIAZIONI - LISTA DE ABREVIACIONES

● AV_R_OUT	Audio Right-Out	● L1_INFO	STANDARD L BAND 1
● AV_I_OUT	Audio Left-Out	● LDL	LINE LOCKED CLOCK 27 MHz
● AV_R_IN	Audio Right-In	● LDR	LED DISPLAY
● AV_L_IN	Audio Left-In	● MAIN_Y	Y FROM CHROMA DECODER
● AV_C_IN	Chroma-In	● MAIN_U	U FROM CHROMA DECODER
● AV_Y_IN	Video-In	● MAIN_V	V FROM CHROMA DECODER
● AV_Y_OUT	Video-Out	● M-RES	MASTER RESET TO MICROPROCESSOR
● AV1_8	Pin-8 Detector	● MUTE	MUTES AMPLIFIERS
● BEAM_INFO	BEAM CURRENT INFORMATION	● NMI	NON MASKABLE INTERRUPT (alternate function of Pin 55 STR092)
● BG_INFO	SWITCH BG	● NORM	SWITCH POLARITY OF THE VIDEO SIGNAL TUNER
● B_AV	B SIGNAL FROM AV	● PLL-ON	ENABLE DEFLECTION PLL
● B_TXT	B SIGNAL FROM TEXTMODULE	● PKS	SIGNAL FOR ABL CIRCUIT (STV2161/STV2162)
● CRT_B	B SIGNAL TO VIDEO AMPLIFIER	● R_AV	R SIGNAL FROM AV
● CRT_G	G SIGNAL TO VIDEO AMPLIFIER	● R_TXT	R SIGNAL FROM TEXTMODULE
● CRT_R	R SIGNAL TO VIDEO AMPLIFIER	● SAFE	SAFETY INFORMATION FROM DEFLECTION
● CVBS_SAT	SAT_VIDEO	● SMPS_IN	FEED BACK SIGNAL FOR POWER SUPPLY
● DEGAUSS	DEGAUSS SIGNAL	● SSC	REGULATION (STV2161/2)
● E.W_DRIVE	EAST - WEST DRIVE SIGNAL	● TEMP_ABL	SUPER SAND CASTEL CIRCUIT
● EW_BACK	FEED BACK INFORMATION	● T1_CVBS	SIGNAL DST-TEMPERATURE SENSING CIRCUIT
● FB_AV	FAST BLANK SIGNAL FROM AV SCART	● U_SCART	COMPOSITE VIDEO BASEBAND FROM TUNER
● FB_DETECT	FAST BLANKING DETECT	● +USYS	SCART VOLTAGE
● FB_TXT	FAST BLANK SIGNAL FROM TEXTMODUL	● +/- US	SYSTEM VOLTAGE
● FRAME_DR	DRIVE SIGNAL FOR VERTICAL DEFLECTION	● +UVERT	SOUND VOLTAGE
● G_AV	G SIGNAL FROM AV	● +UVERT	VERTICAL VOLTAGE
● G_TXT	G SIGNAL FROM TEXTMODULE	● +UVFB	VERTICAL RETRACE VOLTAGE
● HDFL	HORIZONTAL SYNC.	● +UVIDEO	VIDEO VOLTAGE FOR THE CRT BOARD
● HDRV	DRIVE SIGNAL FOR HORIZONTAL DEFLECTION	● VA	VERTICAL REFERENCE OUT FROM TDA 9143
● HTR1 / HTR2	HEATER OUTPUT FROM THE DST TO CRT	● VDL	VERTICAL SYNC.
● I_CUT	CUT OFF CURRENT	● V-SYNC	VERTICAL SYNC.FOR TELETEXT MODULE
● IIC-CL-1	I2C CLOCK BUS 1	● 5 V	5V POWER SUPPLY
● IIC-CL-2	I2C CLOCK BUS 2	● 13 V	12V POWER SUPPLY
● IIC-DA-1	I2C DATA BUS 1	● 5 VSTBY	5V STAND BY
● IIC-DA-2	I2C DATA BUS 2	● 10 VSTBY	10V STAND BY
● IR	INFRARED		

PARTS LIST

LISTE PIECES DETACHEES

ERSATZTEILLISTE

LISTA PARTI DI RICAMBIO

LISTA DE PIEZAS DE REPUESTO

THOMSON

52RW64E

Chassis ICC19

MODULES

MAIN	IC19M5MA08P004	
ABL	ABLRP19	R 10637710
AMVD	AM/VD19000	R 10546730
AMVD	SUBAMVD19100	10546720
CRT	CRTRP19 R	R 10284380
CRT	CRTRP19 G	R 10546590
CRT	CRTRP19 B	R 10529410
DCU	DCURP19	R 10468670
DVT	DVT19010	R 10510420
EMB	EMB19500	R 10600840
FCB	FCB1907	R 25312710
KDB	KDB1909	R 25382560
LDN	LDN1907	25421050
PS	PSRP19	R 10527240
RGB	SUB RGB-PIRP19	R 10644830
RIR	IR1902	R 25421170
SCI	SCI19004	R 10581460
VM	VM19400	R 10609390



IP140	TDA8139	10044580	
IP250	K324PG(CNY75GA)	△ 10536210	
IR001	ST90R92	10441970	
IR002	IC-ROM THOMSON V6.02-1	1061194A	
IR003	M24C64-BN1	10533930	
IR004	MC14094BD/HEF4094BT/	20016020	
	BU4094BF FLAT		
IR020	C19 M27C160-120F1 V6.01-1	10652940	
IR030	GM76G256AL-FW70 FLAT	10271860	
IR040	74F02 FLAT	10529250	
IS001,060	MC4558CD IC SMD	10276220	
IS010	MC78L08ACP	10308410	
IS100	MSP8410D-B4 (DIE)	10546420	
IS200	DPL3519 (DIE)	10546430	
IT001	SDA5275-2S	10449670	
IT002	HYB514400BJ-80	10359750	
IV001 ^a	STV2162 CUT2.2	10529490	
IV001 ^c	STV2165	10360480	
IV300	TDA8755 FLAT	10147010	
IV301,302	MSM5412222-25-TS-K FLAT	10389960	
IV303	MCU-1 PLUS FLAT	10598370	
IV305,308,311	HEF4046BT FLAT	10261110	
IV306	LM358D FLAT	10258670	
IV312	TS462 FLAT	10606770	
IV601	TDA9143N3	10591540	
IV602	TDA4665T FLAT	10155740	
IV780	HEF4053BT/BU4053BF/	20230300	
	UPD4053BG FLAT		
IX900	TEA6415C	15081290	
ZL041	MP160	△ 10457130	
ZV301	MP50	△ 10457120	



TA001 ^b , 002 ^b	BDW93CFI	10599300
052,054, TB001,		
002,052,054,		
TG001,002,052,		
054		
TA001 ^a , TI030,	BC856B SMD	16006310
TP150,166,190,		
TV001 ^c , 051,053,		
063,071,073,		
083,382,393,		
600,640,660,		
680,681,775,		
785, TV004		
TA002 ^a , 006,050,	BC846B SMD	16006260
TB006,050,		
TG006,050,		
TI031,032,070,		
TL001,062,063,		
TP026,027,152,		
161,162,167,		
170,175, TR002,		
102,105, TV052,		
072,395,601,		
603,604,641,		
642,661,662,		
682, TX955,960,		
965, TY001,002,		
003,005		
TA003,004,053,	BDW94CFI	10599200
055, TB003,004,		
053,055, TG003,		
004,053		
TA005,051,	BF420	16003080
TB005,051,		
TG005,051,		
TK106,206,306,		
TV002 ^b		
TI010,033,034,	BCR141 SMD	16006890
040,045,050,		
TP145, TR091,		
095,106, TT004		
TI020, TV307	BF799 SMD	35031670

xxxx^a : MAIN

xxxx^b : DCU

xxxx^c : VM

xxxx^d : KDB

R : RECYCLED PART

For any requests, please contact THOMSON multimedia after sales service area

: PIECE RECYCLEE

Pour toutes précisions, contactez votre service après vente local THOMSON multimedia

: AUSTAUSCHTEILE

Für weitere Auskünfte, wenden Sie sich bitte an die THOMSON multimedia Kundendienste

: RICAMBIO RICICLATO

Per precisazioni, contattare l'assistenza tecnica THOMSON multimedia

: MODULO REPROCESADO

Para cualquier pregunta, por favor contactar con el responsable de zona del servicio postventa de THOMSON multimedia

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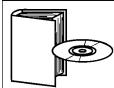
REV. N° 0 00 / 00 00000000

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TK001,003,005	BC857B SMD	30946660		DA001^b,002^b	1N4148	44009209	DL030	DTV32F-1500	10452490
009,027,101,				003,010,011,			DL032	BYR29F-600	10569340
132,201,232,				050,051,052,059,			DL034,036	EGP10D	20953640
301,332, TS001 ,				060, DB001,002 ,			DL041,DP140	BYW29-150	16009140
002, TT002,008 ,				003,010,011,			DL043	RGP10M	10455320
009,010, TV006 ,				050,051,052,			DL046	RGP15-20	10340890
007,008,011,				059,060, DF001 ,			DL050	BZX85C22	11072690
019,020, TX620 ,				DG001,002,003 ,			DL057,DS061 ,	BAV103 SMD	10155030
622,650,652				010,011,050,			062, DV104,108 ,		
TK002,004,020	BC847B SMD	11070770		051,052,060,			DX120,151,220 ,		
022,023,024,				DK001^d,002^d ,003,			251,301,351		
028,130,230,				004,013, DL092 ,			DL060	ZMM3.3	16030170
330, TM104,109 ,				DP027,061,218 ,			DL066	BZX55B47	11073450
110,204,209,				219,223,224,			DL071	BZX55C20	30948810
210,304,309,				226,227,231,			DP022,113	FUF4005/MUR160	16009580
310, TP001 ,				232,237,238,			DP039,040	RGP02-20	10472330
TS003,004 ,				239,268, DR091 ,			DP041	BAT42	16007410
TT001,003,006 ,				DS001,002,003 ,			DP052,133,134	1N4001	16008160
007,011,012,				DV002,003,004 ,			DP053,261,263	RGP15G	10272800
TV001^b,003,004 ,				007,008,009,			DP108,109	RGP30D	10455370
005,014, TX621 ,				010,011,014,			DP110A,110B	RGP50M	10298160
651,830,831,				015,020,027,			DP112	MUR1100E	10360280
832,833				028,029, DZ050			DP130	MUR420	16009630
TK102,104,202	BF883S	10162190		DA001^a,DF002	LL4148 SMD	16012450	DP201	GBU4M	10474680
204,302,304				028, DK005,006 ,			DP213	BZX55C33	11073690
TK103,105,203	BF872	10162200		007,008,102,			DP225	ZPD4.7/BZX55C4V7	20475400
205,303,305				106,107,201,			DP233,234,236	BA159	16008120
TK107,207,307	BC557B	16001060		202,205,206,			240,243		
TM101,108,201				207,301,302,			DP235	BZX55C18	11073680
208,301,308,				305,306,307,			DP265,267	S410D	10527250
TP270				DP051,060,151 ,			DR104	BZX55B9V1	70438220
TL004	MPSW01A	70436520		152,160,175,			DV018,019	BYD43-20	10301970
TL005	MPS750	16001340		178,179,190,			DV101	ZMM6.8 SMD	70439940
TL028	TIP122FP	25358380		DR030,031,090 ,			DV303,305,307	BB729S SMD	20542090
TL030	ON4977/BU2525AX	10461310		DT001,002,003 ,			DV623	BZX84C5V1 SMD	16030330
TM006	2SA1837	16001500		004,005,006,			DX810	BZX55B8V2	40441820
TM007	2SC4793	16001600		007,008,009,			DX814	BZX55B5V1/ZPD5V1 2%	44035702
TM102,202,302	BC337-40	45001466		010, DV025,026 ,			GE001	TLUV5300 LED	11137650
TM105,205,305	BC547B	16000890		027,028,038,					
TP238				039, RV052					
TP025	600V 1A25	10353960		DA002^a,DV011	LL42 SMD	16012530			
TP060	BUL810TH	10224370		012					
TP146	BD241C	16001880		DA005,006,053 , RGP10G		10459090			
TP220	2SK1460	15046790		058, DB005,006 ,					
TP222	BC327	16000430		053,058, DF031 ,					
TP223,224,271	BC547C	16000900		033, DG005,006 ,					
TR048	BCR185 SMD	16006900		053, DK001^b,002^b ,					
TV002	TIP122	10045750		010,011,012,					
TV1010	2SC3675	16004070		DL001,051,052 ,					
TV108	BC327-40	16000450		DM110,111,210 ,					
TV300	BCP69 SMD	35031480		211,310,311,					
TV303,381,392	BF660 SMD	16005830		DP050,DV005 ,					
TX505	BC848B SMD	35030590		006,031,032,					
TX910,920,950	BC546B	45001866		033					
TZ050,051				DA008,009,056 , BZX55C6V2		20475410			
				057, DB008,009 ,					
				056,057, DG008 ,					
				009,056, DV017					
				DF007	ZMM15 SMD	16030060			
				DF011	BZW04-48	10351880			
				DH001	ZMM33	10376460			
				DI001,002,040 ,	BA782S	20542050			
				041,051,070,					
				071					
				DK009	MA2062-A 6V	20707320			
				DK103,104,113	EGP10G	10542140			
				203,204,213,					
				303,304,313					
				DK105,205,305	1N4007GP	10455230			
				DK108,208,308	BZT03/D150	70402351			

LV326,380	7M96HZ	10519350	RK129,229,329	6K81 OHM 1% 0,40W	15020590	CP204	1N5F 10% 1K0V	20338740
LV350	7M96HZ	10519370	RK228	47K5 OHM 1% 0,40W	13066180	CP205,206	4N7F 1K0V	10058740
			RL013	4R7 OHM 5% 0,50W	△ 15010040	CP209	220U0F 20% 400V	10510680
PI030,035	2K2 OHM	10308240	RL015	1R0 OHM 5% 0,25W	△ 15009730	CP210	22U0F 20% 400V	10114340
PI050	22K0 OHM	10272680	RL029	2R2 OHM 5% 0,50W	△ 10440420	CP221	3N3F 20% 1K0V	43324300
PP267	100R0 OHM	10260330	RL040	0R27 OHM 5% 2,50W	10263600	CV045,047	4N7F 50% 2K0V	14034420
PS001	1M0 OHM	42045200	RL043	2R2 OHM 5% 0,70W	△ 13000480	CV048	820P0F 5% 2K0V	10513370
PV003,004	1K OHM	42032100	RL052	54K9 OHM 1% 0,70W	10224320			
PV101,201,301	2M2 OHM	10174000	RL081	68K1 OHM 1% 0,12W	10433880	LL001	DRIVER	10468760
			RL082	59K0 OHM 1% 0,12W	10516830	LL008	DSTGDS35	△ 10641600
			RM101,201,301	220R0 OHM 5% 0,25W	△ 15009810	LL037	9U0H	△ 10545340
			RP001,023	182K0 OHM 1% 0,40W	15012250	LP020	SMT57LZ	△ 10549750
			RP009,010	3K32 1% 0,40W	41226709	LP070	DRIVER	△ 60412091
			RP012	39K2 OHM 1% 0,40W	15017130	LP201		△ 10203560
			RP015	8K66 OHM 1% 0,40W	15021880	LP250	SMT17	△ 10534490
			RP016	8K06 OHM 1% 0,40W	15021810	LV002		10458460
			RP017	7K5 OHM 1% 0,40W	15021220			
			RP018	5K36 OHM 1% 0,40W	15019620			
			RP020	0R12 OHM 5% 2,50W	△ 10334390			
			RP021	10K2 OHM 1% 0,40W	15010370			
			RP022	100R0 OHM 5% 4,50W	10379830			
			RP027	15K4 OHM 1% 0,40W	15011730			
			RP030	100K OHM 1% 0,40W	15010170			
			RP031	13K0 OHM 1% 0,40W	15011210			
			RP032,035	22K1 OHM 1% 0,40W	41303301			
			RP056,057	1K3 OHM 1% 0,40W	15012810			
			RP066	3K65 OHM 1% 0,40W	13066710			
			RP100	10M0 OHM 5% 0,70W	△ 10074320			
			RP207	2R7 OHM 5% 4,50W	10379110			
			RP220,RV001	4R7 OHM 5% 2,5W	10471330			
			RP244	7K15 OHM 1% 0,25W	15021170			
			RS042	4R7 OHM 5% 0,25W	△ 35032200			
			RV069	150K0 OHM 1% 0,40W	41243301			
			RX503	15R0 OHM 5% 0,25W	△ 15009630			
			RZ058	68K1 OHM 1% 0,40W	41307009			
			RZ059	18K2 OHM 1% 0,40W	R 15012330			
								
			CK103,105,107,	10N0F 10% 400V	15001080			
			203,205,207,					
			303,305,307					
			CK117,217,317,	1N0F 2K0V	14034870			
			CV049					
			CK123,223,323	470P0F 10% 3K0V	14006050			
			CK129,229,329	100N0F 20% 400V	13071240			
			CL030	1N9F 5% 2K0V	△ 10559090			
			CL031	10N0F 3.5% 1K5V	43180300			
			CL032	20N0F 5% 400V	43388900			
			CL037	510N0F 5% 250V	10381880			
			CL041,043	330P0F 20% 1K0V	14035270			
			CL052	10N0F 5% 400V	14035870			
			CL146	150P0F 20% 1K0V	30937590			
			CM148,248,348	470P0F 10% 400V	14002340			
			CP020	150U0F 385V	43424800			
			CP022,135,137,	470P0F 10% 2K0V	10099390			
			138					
			CP023	2N2F 10% 1K0V	13090980			
			CP050,053	330P0F 20% 400V	14002220			
			CP100	1N5F 20% 400V	△ 10344860			
			CP101	150P0F 20% 400V	△ 20738090			
			CP112	3N3F 5% 630V	10490550			
			CP201,202	100N0F 20% 275V	△ 10331520			

FP201	2A5T TIME-LAG FUSE 2A5T FUSIBLE TEMPORISE 2A5T THERMISCHE SICHERUNG 2A5T FUSIBILE TEMPORIZZATO 2A5T FUSIBLE TEMPORIZADO	▲ 10246750	CABINET ASSY COFFRET EQUIPE GEHAEUSE KPL MOBILE COMPLETO MUEBLE EQUIPADO	25397880	RETAINING RAIL REGLETTE DE MAINTIEN HALTESCHIENE BARRA DI FISSAGGIO LISTON DE SUJECTION	25433730	
IK007,008,015	IC SUPPORT 2X4 SUPPORT CI 2X4 IC-FASSUNG 2X4 SUPPORTO CI 2X4 SOPORTE CI 2X4	67449100	REAR PANEL UPPER DOS SUPERIEUR RUECKWAND OBEN PANNELLO POSTERIORE SUPERIORE TAPA POSTERIOR SUPERIOR	▲ 25418870	SCREEN ECRAN BILDSCHIRM SHERMO PANTALLA	25397190	
IR001	IC SUPPORT 4X17 SUPPORT CI 4X17 IC-FASSUNG 4X17 SUPPORTO CI 4X17 SOPORTE CI 4X17	67626900	REAR PANEL DOWNER DOS INFERIEUR RUECKWAND UNTER PANNELLO POSTERIORE INFERIORE TAPA POSTERIOR INFERIOR	▲ 25418880	GLASS PROTECTION VITRE DE PROTECTION GLAS SCHULTZ VETRO DI PROTEZIONE CRISTAL DE PROTECCION	25397180	
IR020	IC SUPPORT 2X21 SUPPORT CI 2X21 IC-FASSUNG 2X21 SUPPORTO CI 2X21 SOPORTE CI 2X21	67085500	FRONT COVER ASSY FACADE EQUIPEE FRONTPLATTE KPL PANNELLO FRONTALE COMPLETO PANEL FRONTAL EQUIPADO	25398880	MIRROR MIROIR SPIEGEL SPECCHIO ESPEJO	25394840	
NH001	CTT5000T UHF/VHF TUNER CTT5000T TETE UHF/VHF CTT5000T UHF/VHF TUNER CTT5000T TUNER UHF/VHF CTT5000T SINTONIZADOR UHF/VHF	20808880	LOGO THOMSON LOGO THOMSON SCHRIFTZUG THOMSON MARCHIO THOMSON LOGOTIPO THOMSON	25388800	ADHESIVE TAPE FOR 10540360 RUBAN ADHESIF 10540360 KLEBEBAND FUR 10540360 NASTRO ADESIVO POR 10540360 CINTA ADHESIVO POR 10540360	15236120	
PE130	FOCUS BLOCK 75M0 OHM BLOC FOCUS 75M0 OHM FOCUS BLOCK 75M0 OHM BLOCCO FOCUS 75M0 OHM BLOQUE FOCUS 75M0 OHM	▲ 15249840	LOUDSPEAKER GRID GRILLE HAUT PARLEUR LAUTSPRECHERGITTER GRIGLIA ALTOPARLANTE REJILLA ALTAZOZ	25398900	CATHODE RAY TUBE GREEN TUBE CATHODIQUE VERT FARBILDROEHRE GRUEN TUBO CATODICO VERDE T.R.C VERDE	15339670	
PH200	ON/OFF SWITCH CONTACTEUR MARCHE/ARRET EIN-AUS SCHALTER CONTATTORE ACCESO/SPENTO CONTACTOR MARCHA/PARADA	▲ 10276500	COVER JACK SOCKET CACHE PRISE JACK ABDECKUNG BUCHSE COPERCHIO PRESA JACK CUBIERTA TOMA JACK	25298150	CATHODE RAY TUBE BLUE TUBE CATHODIQUE BLEU FARBILDROEHRE BLAU TUBO CATODICO AZZURO T.R.C AZUL	15339710	
PT580	SPARK GAP ECLATEUR FUNKENSTRECKE SPINTEROMETRO EXPLOSOR	▲ 15154190	UNIT FOCUS SUPPORT SUPPORT BLOC FOCUS BLOCK FOCUS HALTER SUPPORTO GRUPPO FOCUS SOPPORTE BLOQUE FOCUS	▲ 15143370	CATHODE RAY TUBE RED TUBE CATHODIQUE ROUGE FARBILDROEHRE ROT TUBO CATODICO ROSSO T.R.C ROJO	15339700	
SK001,002,003, MICROSWITCH 004,005,006, MICRO CONTACTEUR 007 MIKRO SCHALTER MICROINTERRUTTORE MICROCONTACTOR	30011100	IR SUPPORT SUPPORT IR HALTER IR SUPPORTO IR SOPORTE IR	▲ 15162500	IR SUPPORT SUPPORT IR HALTER IR SUPPORTO IR SOPORTE IR	DEFLECTION YOKE DEVIATEUR ABLENKEINHEIT BOBINA DI DEFLESSIONE DEFLECTOR	10540340	
EQUIPMENT/PRESENTATION EQUIPEMENT/PRESENTATION AUSSTATTUNG/GEHAEUSE PARTI VARIE EQUIPO/PRESENTACION							
PROTECTIVE CAP, PLASTIC PROTECTEUR PLASTIQUE ABDECKUNG, KUNSTSTOFF PROTEZIONE IN PLASTICA PROTECCION, PLASTICO	35071000	8R OHM 20W LOUDSPEAKER 130MM 8R OHM 20W HAUT PARLEUR 130MM 8R OHM 20W LAUTSPRECHER 130MM 8R OHM 20W ALTOPARLANTE 130MM 8R OHM 20W ALTAZOZ 130MM	10316940	8R OHM 15W LOUDSPEAKER 27X42 8R OHM 15W HAUT PARLEUR 27X42 8R OHM 15W LAUTSPRECHER 27X42 8R OHM 15W ALTOPARLANTE 27X42 8R OHM 15W ALTAZOZ 27X42	10317160	FLEXI BOARD (COIL BSV) CABLE PLATINE (BOBINE BSV) KABEL PLATTE (SPULE BSV) CAVO PIASTRA (BOBINA BSV) CABLE PLATINA (BOBINA BSV)	10540360
UPPER BOX EMBALLAGE SUPPERIEURE KARTON OBEN IMBALLAGGIO SUPERIORE EMBALAJE SUPERIOR	35070940	ON/OFF BUTTON TOUCHE MARCHE/ARRET EIN AUS TASTE TASTO ACCESO/SPENTO TECLA MARCHA/PARADA	25398850	ON/OFF BUTTON TOUCHE MARCHE/ARRET EIN AUS TASTE TASTO ACCESO/SPENTO TECLA MARCHA/PARADA	FITTING UPPER DESSUS DE CARTON POLSTER OBEN DISTANZIATORE SUPERIORE CALZO SUPERIOR	10524990	
FITTING DOWNER FOND DE CARTON POLSTER UNTER DISTANZIATORE INFERIORE CALZO INFERIOR	10524970	BUTTON ASSY ENSEMBLE DE TOUCHES TASTENEINHEIT ASSIEME TASTI CONJUNTO DE TECLAS	25398840	BUTTON ASSY ENSEMBLE DE TOUCHES TASTENEINHEIT ASSIEME TASTI CONJUNTO DE TECLAS	FITTING RIGHT/LEFT COTE DE CARTON POLSTER RECHTS/LINKS DISTANZIATORE DESTRO/SINISTRO CALZO DERECHA/IZQUIERDA	10524980	
ADAPTER ANTENNA ADAPTATEUR D'ANTENNE ADAPTER ANTENNE ADATTATORE ANTENNA ADAPTADOR ANTENA	10460690	HOLDER CONTROL UNIT SUPPORT DE COMMANDES HALTER BEDIENTEIL SUPPORTO DI COMANDO SOPORTE DE MANDO	25398520	POWER SUPPLY LEAD CORDON D'ALIMENTATION NETZKABEL CAVO DI ALIMENTAZIONE CABLE DE ALIMENTACION	▲ 10318870	FOLDING BOX RP52, CPL EMBALLAGE CARTON RP52 COMPLET KARTON RP52, KPL IMBALLAGGIO CARTONE RP52 EMBALAJE CARTON RP52	35070910
						RCT4130 REMOTE CONTROL RCT4130 TELECOMMANDE RCT4130 FERNBEDIENUNG RCT4130 TELECOMANDO RCT4130 TELEMANDO	21016730



RP19 SERVICE MANUAL EUROPE	35064590
RP19 DOC TECHNIQUE EUROPE	
RP19 TECHNISCHE DOKUMENTATION EUROPE	
RP19 DOCUMENTAZIONE TECNICA EUROPE	
RP19 DOCUMENTACION TECNICA EUROPE	
RP19 SERVICE MANUAL SUPPLEMENT	35089640
RP19 DOC TECHNIQUE ADDITIF	
RP19 TECHNISCHE DOKUMENTATION ZUSATZ	
RP19 DOCUMENTAZIONE TECNICA ADDITIVO	
RP19 DOCUMENTACION TECNICA ADITIVO	
CDROM ICC19 VERSION 2	35075700
CDROM ICC19 VERSION 2	
52RW64E PARTS LIST	35094280
52RW64E LISTA DE PIECES DETACHEES	
52RW64E ERSATZTEILLISTE	
52RW64E LISTA PARTI DI RICAMBIO	
52RW64E LISTA DE PIEZAS DE REPUESTO	
RP C19-S4 UM TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	25424710
RP C19-S4 NU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
RP C19-S4 BA TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
RP C19-S4 IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
RP C19-S4 IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
52RW64E UM TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	25392060
52RW64E NU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
52RW64E BA TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
52RW64E IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	
52RW64E IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/SK/RU/GR/P	

52RW64E

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